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Automotive News

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U.S.-built Accords pile up in storage lots

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

Slow sales are catching up with the usually robust Japanese transplants.

At least three of them — Honda of America Manufacturing Inc., Toyota Motor Manufacturing U.S.A. Inc. and Subaru-Isuzu Automotive Inc. — filled their factory shipping yards with unsold cars in February.

While the situation has eased at Toyota, Honda and Subaru-Isuzu have had to lease extra lots to hold spillover production. Honda and Isuzu have taken the unprecedented step of cutting back production. Parent companies of Honda, Toyota, Nissan and Mazda are trimming exports to the United States.

The steps come as the industry-wide winter slowdown is giving most members of the group their first taste of bad times in the United States. So far, the cease-fire in the Persian Gulf war has only brought hope for some relief.

In the meantime, more than 2,000 Accords — America's best-selling car — are sitting behind an old U.S. Army depot in Marion, Ohio.

Honda is using the site for overflow storage space for Accords that continue coming off the Marysville, Ohio, assembly line at the rate of 1,400 a day.

Honda's domestic car sales dropped 26 percent in the first 10 days of February, followed by a 10.9 percent gain in the second 10 days. But the factory will not be asked to reduce production beyond a previously announced cut of 5,000 units for the first quarter, said Kurt Antonius, a spokesman for American Honda Motor Co. Inc.

"We have quite a bit of space in Marion until this thing is over," Antonius said. "The last thing we want to do is disrupt production at

see ACCORD, page 38

HONDA ACCORD/INDUSTRY CAR SALES

Car sales	Jan. 1 - Feb. 20 1991	Jan. 1 - Feb. 20 1990	% Change
Domestic Accords	26,843	27,824	– 3.53
Imported Accords	11,738*	16,539*	– 29.03*
Total domestic/imported Accords	38,581*	44,363*	– 13.03*
Total domestic/imported cars	921,627	1,184,369	– 22.18

*Estimate
SOURCE: Automotive News Data Center

AUTOMOTIVE NEWS/JOE WILSSENS

Over 2,000 Honda Accords are being stored at a former U.S. Army depot in Ohio.

SAE

Engineers brace for new demands of legislators

By Jack Keebler
AUTOMOTIVE NEWS STAFF REPORTER

DETROIT — Despite the industry's best efforts on emissions, nonpolluting manufacturing methods, fuel economy and safety, the automobile remains a prime target of legislators and environmental and safety groups.

As a result, many technical sessions at last week's SAE International Congress & Exposition concentrated on technologies for recycling, environmental protection, vehicle emissions, fuel economy and crash safety.

According to Mene Asensio, SAE staff organizer of paper presenters, 28 speakers cancelled presentations because of company restrictions on international travel. Replacements were found to deliver 21 of the papers.

"The difficulty was anticipated, predicted and planned for and the companies responded beautifully. They made every effort to give us a qualified speaker," Asension said.

Exhibiting suppliers touted the recyclability of their materials. Test-equipment makers pushed the

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Makers cross fingers as war ends

Industry hopes for upturn; mid-February bad, but not awful

By Jim Henry
AUTOMOTIVE NEWS STAFF REPORTER

Early victory in Kuwait, merely bad sales in mid-February, and a slight uptick in consumer confidence had some optimists talking about an early end to the recession last week.

However, without more solid indications that the economy will improve, automakers stuck to reduced production schedules to avoid adding to a glut of cars.

"We may get a little boost out of the end of the war, but not enough to catapult us out of the recession," said consumer researcher Fabian Linden.

Some U.S. plants will do better than average as Kuwait rebuilds its car and truck fleets. (Story on Page 35.) General Motors planned

Japan, U.S. eye sales to Kuwait, Page 35

to increase production of Suburbans and Chevrolet Caprices.

From Feb. 11 to 20, the daily sales rate for cars and light trucks fell 15.2 percent. Sales of domestic and imported cars and trucks were 315,465, down 4.6 percent from 330,727 last year, but there were nine selling days this year and eight last year.

Cars and trucks were down about the same. Big 3 brands were down 14.3 percent while import brands were down 17.7 percent.

In January, the whole market was off 27.7 percent.

"Business is getting better," said Mark W. Hutchins, general sales manager of Lincoln-Mercury Division. Hutchins said last week that the auto industry may outperform predictions by Ford economists that the recession could end by mid-1991.

"Personally, I think it may be a little quicker," he said.

A study by DRI released just before the war ended predicted that the U.S. economy will rebound by late spring or early summer. After the cease-fire, DRI added 200,000 units to its prediction for 1991, and now expects total U.S. sales of 12.7 million to 12.8 million. That is at least 1 million below last year.

Ford posted a year-to-year gain

see SALES, page 35

Big 3 chairmen seek relief from White House

By Diana T. Kurylko
AUTOMOTIVE NEWS STAFF REPORTER

WASHINGTON — The chairmen of the Big 3 quietly held high-level talks with Bush administration officials last week, painting a dismal picture of the industry's woes and pleading for regulatory relief and lower interest rates.

In a day-long visit, General Motors Chairman Robert Stempel, Ford Motor Co. Chairman Harold "Red" Poling and Chrysler Corp. Chairman Lee Iacocca visited key cabinet members, leading Republican senators and Federal Reserve Board Chairman Alan Greenspan.

Sources said the auto chairmen timed their visit to have maximum influence on pending legislation and policies. They include the national energy strategy, corporate average fuel economy standards, trade talks with Japan, and a pending second wave of safety regulations on cars and light trucks.

Washington offices for the automakers were unusually reluctant to confirm the agendas of their chairman and refused to discuss more than the general nature of the visits. A Big 3 source said the manufacturers feared that news of the industry's visit could be negatively characterized and cause serious repercussions in economic markets.

Stempel, Poling and Iacocca reportedly painted a frank but dismal picture of the

see RELIEF, page 39

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Freightliner to dump Mercedes label

Freightliner Corp. is refranchising its medium-duty dealers, preparatory to introducing a new line of rebranded trucks and phasing out its Mercedes-Benz Truck Co. operations. Story on Page 34

AUTOMOTIVE NEWS-JOE WILSSENS

Automakers that produce safer, cleaner cars will excel in the marketplace, Center fpr Auto Safety chief Clarence Ditlow believes.

Ditlow to stress responsibility in talk to Chrysler directors

By Mary Connelly
AUTOMOTIVE NEWS STAFF REPORTER

Consumer advocate Clarence Ditlow will make his first appearance before one of the Big 3's board of directors this week.

Chrysler Corp. has invited Ditlow, executive director of the Center for Auto Safety, to speak to its board at its monthly meeting scheduled for Thursday in New York City.

Ditlow said his message to the board will stress the auto industry's social responsibility.

"The theme is really clear," Ditlow said. "That is their social responsibility, fuel economy and safety. I will stress that if they are a more socially responsible corporation and produce cars consumers want, they will excel in the marketplace.

"There is a mutuality of interest," said Ditlow, who heads the 20-year-old safety group founded by consumer activist Ralph Nader. "We may be on the opposite side of the fence but the ultimate goal is similar. We're going to try to show them the sales advantage of safety, reliability and fuel economy."

Ditlow said he had not yet prepared his remarks for the board because he was uncertain how much time he would be allocated.

The Center for Auto Safety in December asked Chrysler to recall 500,000 1989 and 1990 model cars and minivans equipped with the company's A604 four-speed automatic transmission alleging reliability problems. But Ditlow said his remarks are likely to address wider issues and not focus on the A604.

"We will look at the overall process and consumer issues over time, how companies respond and what a company's social responsibility is," Ditlow said. He added that he may point out consumer-related areas where Chrysler could gain market leadership.

Ditlow outlined his agency's agenda in January during the Automotive News World Congress and his remarks are likely to reflect those priorities.

At that time, he said the auto industry in the 1990s should place safety, reliability, quality and consumer protection at the top of its list and take action before the federal government does.

Ditlow's agenda includes full-front-seat air bags by 1993, rather than 1994 when mandates for driver-side bags take effect; improved side-impact protection for head and body; mandatory anti-lock brakes; exterior designs that reduce injury to pedestrians; better stability to reduce rollover; and a return to bumpers that withstand crashes of 5 mph without damage.

Ditlow's outside voice is not the first heard by the Chrysler board. Chrysler invited outspoken NADA President Ron Tonkin to speak to the board when he headed the dealer organization in 1989.

Lutz to plead Chrysler's case at summit with Consumer Reports

By Mary Connelly
AUTOMOTIVE NEWS STAFF REPORTER

Chrysler Corp. President Robert Lutz will meet Wednesday with representatives of *Consumer Reports*, the magazine that branded Chrysler's A604 four-speed automatic transmission "a lemon."

A spokesman for Consumers Union, which publishes the magazine, confirmed the Wednesday meeting.

Chrysler Corp. Chairman Lee Iacocca in February said Lutz would head a team of company engineering and marketing representatives meeting with the magazine's staff.

In its February issue, *Consumer Reports* told consumers to avoid buying Chrysler vehicles equipped with the A604 transaxle. The 1.4 million vehicles equipped with the 2½-year-old transmission include most Chrysler minivans.

"*Consumer Reports* has agreed — and they don't usually do this — to meet with us to exchange some data on both transmissions and minivans and maybe we can get this thing cleared up," Iacocca said in February.

It is expected that Lutz will tell *Consumer Reports* that transmission reliability problems cited by the magazine have been corrected.

Chrysler maintains that the most widespread problems occurred during the transaxle's introduction in the 1989 model year and that corrective modifications have been made.

The company has said it replaced 19,000 A604 units in the 1989 and 1990 model years, about 3.78 percent of A604 units installed in the 1989 model year and 0.78 percent of the units installed in the 1990 model year. Chrysler said its internal data indicates the replacement rate continues to decline in the 1991 model year and is now within the industry norm.

In addition, Chrysler may claim in the meeting this week that the company was in essence a victim of bad luck because a 1991 model tested by *Consumer Reports* was one of a small number of units produced with a separate A604 problem. Chrysler has confirmed that a "very small batch" of A604 units were produced in the early 1991 model year with a bad surface finish on the reaction shafts, damaging the reaction shaft bushing. That problem has been corrected but one of the defective units was purchased by the magazine for its testing.

> "Consumer Reports has agreed — and they don't usually do this — to meet with us to exchange some data on both transmissions and minivans and maybe we can get this thing cleared up."
>
> **Lee Iacocca**
> Chrysler chairman

In its February issue, *Consumer Reports* cited a high incidence of transmission problems based on repair histories of more than 800,000 1989 and 1990 models owned by the magazine's subscribers.

Consumer Reports says 20 percent of owners of 1989 Dodge Grand Caravans and 19 percent of the owners of 1989 Plymouth Grand Voyagers reported problems with the A604. The magazine said more than 14 percent of all Chrysler vehicles with the transaxle had transmission problems in the first year of ownership. That compares to an average rate of 3 percent incidents of trouble with automatic transmissions for all 1989 models from all manufacturers in the survey.

Six months into the 1990 model year, the automatic transmission problem rate was 10 percent for the 1990 Dodge Grand Caravan and 9 percent for the Plymouth Grand Voyager, *Consumer Reports* said. The average for 1990 models was 2 percent.

Consumer Reports said the survey reflects repair experiences between April 1989 and March 1990, the time period in which Chrysler claims it was correcting a design defect in the transmission.

"This is old news," Iacocca said of the magazine's report. "It is a consumer magazine. They are interested in taking care of consumers. We should be getting accolades for our program to take care of consumers."

Chrysler has begun a massive customer satisfaction program to reach A604 owners. All owners are being telephoned to resolve any lingering problems. Deductibles are being waived and free loaner vehicles offered.

Ford searches for more cost cuts

Poling says only half of $3 billion target found; layoffs loom

By Kathy Jackson
AUTOMOTIVE NEWS STAFF REPORTER

Certain Ford Motor Co. employees must decide this month if they will take an early retirement buyout package as part of the company's $3 billion cost-cutting program.

In a statement to employees via closed-circuit television last week, Chairman Harold Poling said half of the $3 billion savings has been achieved, leaving $1.5 billion to be trimmed from the budget by year's end. Most of the cuts will come within the company's white-collar ranks.

Highlights of a plan to reach the company's goal include:

- Offering early retirement to employes aged 55 to 62 with at least 10 years of service.
- Suspending merit increases for the company's top officers through the first quarter of 1992.
- Reducing the merit fund by 25 percent for all other employees through the first quarter of 1992.
- Temporarily suspending the matching contribution for employees that participate in the company's savings and stock investment plan.

During 1989, the most recent year for which figures are available, the company paid $214,157,-903 to employees in supplemental compensation; another $109,678,-015 was given to the stock plan.

Poling said the company wants to avoid layoffs by offering the special early retirements, but a company source, who did not want to be identified, said layoffs probably will be inevitable.

The source said Ford hopes to reduce its 53,000-member white-collar staff by about 10 percent by the end of the year. The company projects that half the cuts will come via attrition, but the source estimates that early retirements at best will make up 3 percent of the reduction. That would leave about 1,060 white-collar employees facing layoff notices.

Ford had a net loss of $518 million in the fourth quarter of 1990, and company treasurer David McCammon projects a loss in the first quarter that ends March 31.

For all of 1990, the company had net earnings of $860 million, down from $3.8 billion in 1989. Its share of the U.S. light-vehicle market fell from 24.6 percent in 1989 to 23.9 percent in 1990.

The company's Financial Services Operations, which includes Ford Motor Credit Co., had net earnings of $761 million, up 15 percent from 1989. Even financial services "may not be immune from some of the cost cutting," said company spokesman Dick Routh.

Ford also eliminated the $1,000 annual Flexible Compensation Account for senior executives and revoked plans to increase the account by $600 for all other employees. That is an account that employees can draw on at their discretion.

Vacation time will be curtailed for top executives, and first-class travel has been eliminated.

Securities analyst Ronald Glantz of Dean Witter Reynolds Inc. said he believes the company won't stop with the white-collar cuts. Glantz predicts the company will reduce its annual dividend from $3 to $1 per common share at its board meeting April 11.

Benton recovering from heart surgery

Allan Gilmour, Ford Motor Co. executive vice president, has temporarily taken over the duties of company President Philip Benton Jr., who is recovering from coronary bypass surgery.

Benton

Ford spokesman Dick Routh said that Gilmour will also continue with his duties as president of the Ford Automotive Group.

Routh said Benton is recovering nicely, but he said he did not know when Benton will return to work.

— Kathy Jackson

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Correction

A Feb. 25 story on the National Highway Traffic Safety Administration's 35 mph crash tests should have said that the Dodge Shadow and Chevrolet Caprice also have driver-side air bags.

Supercar projects at full throttle

Europeans not slowing despite economic, safety potholes

By Richard Johnson
AUTOMOTIVE NEWS STAFF REPORTER

FRANKFURT, Germany — The combination of Gulf war, economic downturn and growing safety and environmental sensitivity in Europe has done little damage to the plans and dreams of several companies to bring various 500-plus-horsepower supercars to market.

Indeed, many projects are gaining momentum.

Bugatti Automobili S.p.A. has just released first photos of its Project 110 supercar that will be unveiled later this year; the Grand Prix team of McLaren Cars has announced it will use a BMW V-12 engine in its planned road car; a design prototype that ItalDesign S.p.A. is showing at this week's Geneva auto show is widely conjectured to be BMW's future entry in the field and analysts say Mercedes-Benz is almost certain to show a high-tech testbed at the Frankfurt show in September.

Also, several independent projects are underway.

BMW Motorsport GmbH will supply a 6-liter, all-aluminum V-12 for the rear-drive, mid-engine McLaren that is set to debut in 1993. Performance figures for the car, expected to debut at the 1992 Geneva show with the name "F1," have not been disclosed.

McLaren's car project leader, Gordon Murray, and BMW engine development chieftain Paul Rosche once worked together on the Brabham-BMW Formula One team.

McLaren, which began developing its new vehicle in 1989, is expected to build about 50 units a year, with the price exceeding $1 million per copy. Murray reportedly is aiming at a 0-62 mph time of 3.2 seconds and a top speed of 217 mph.

The drag co-efficient is expected to be a stunningly sleek 0.18. Lotus Elan designer Peter Stevens is the stylist.

BMW is known to be considering its own car, and many think it could be based on the BMW-powered prototype that ItalDesign will show at Geneva. However, industry executives say BMW is unlikely to move into the supercar arena until arch-rival Mercedes-Benz does.

Mercedes, meanwhile, is expected to show its much-discussed C112 project car at Frankfurt in

see SUPERCARS, page 33

Bugatti plans to roll out the Marcello Gandini-designed 110T supercar, powered by a 12-cylinder twin-turbo engine that develops 550 hp, on Sept. 15 to commemorate the 110th birthday of Ettore Bugatti.

AUTOMOTIVE NEWS / DAVID L. BURHANS

CHINA: *Carmaking again on track, but experts scoff at goals*

By Stephen Vines
STAFF CORRESPONDENT

HONG KONG — On Feb. 9, in a program laced with pomp and import, Chinese state television aired ground-breaking ceremonies for Volkswagen AG's new joint-venture plant in Changchun, where the carmaker is scheduled to be producing 150,000 Golfs and Jettas a year by the middle of the decade.

In the tea-leaf world of China's state-controlled media, where what is aired is of official concern precisely because it is aired, the news announcement had the weight of a policy statement. The message: after consigning joint venture proposals to the deep-freeze during the 1989 crackdown on the democracy movement, China's leadership has put the task of building a world-class car industry back on the fast track.

By any accounting, the ambition is on the scale of one of Mao's Great Leaps: from a manufacturing base that produced just 30,000 cars last year, China's leaders propose to build an industry capable of shipping 700,000 world-quality cars a year to domestic and global markets by the latter part of the decade.

To be sure, the great leap is there on paper. Agreements signed for three new projects account for 600,000 vehicles of the projected total, while existing facilities are expected to boost annual production to around 100,000 units within the next four years.

The projections are universally dismissed by foreign automotive executives working in the country and by outside industry experts knowledgeable in the region.

They point out that planning for the unprecedented expansion of

see CHINA, page 33

DOUBLE-EDGED SWORD

Japanese transplants being pushed to add more local content, but 'Americanization' of vehicles adds risk of CAFE penalties

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

Japanese transplant automakers are finding the search for North American content is getting harder, despite strong gains last year.

Half of the 16 different cars and trucks currently built at North American transplant factories increased their domestic content levels last year. Of those that did, the average gain was 11.4 percent.

The increase was small comfort for some U.S. parts makers, who say the Japanese are dragging their feet in buying U.S. parts for transplants and for use back in Japan. American critics point out that a gaping $10.5 billion parts-trade imbalance still exists between the two nations.

But while the Japanese scurry to speed up their efforts under intensifying political pressures, they continue to face a double obstacle in their efforts:

- U.S. parts makers continue to fall below the quality standards that the Japanese say they are accustomed to, some claim.
- By increasing their domestic content above the 75 percent level, some transplants could create, in the eyes of the U.S. government, a new class of vehicles that could throw them into non-compliance with corporate average fuel economy rules.

Toyota Motor Corp. last year provided Congress with an internal study indicating that the average defect rate of parts from its U.S. suppliers is 100 times greater than those coming from Toyota's Japanese suppliers.

While Toyota's Japanese suppliers averaged 10 defects per 1 million parts delivered, U.S. suppliers averaged 1,000 defects per million, the study said.

A spokesman for Toyota Motor Manufacturing U.S.A. Inc. in Georgetown, Ky., said while the plant does not conduct quality studies based on suppliers' national origin, the numbers were "generally the case" for the U.S. operation.

"All of our suppliers are high-quality, but some of the U.S. suppliers we use have experienced problems with consistently high quality," said spokesman Jim Wiseman. "One problem may be that some U.S. suppliers are overly reliant on that 100 percent final inspection. Toyota looks for built-in quality. That is, we really don't rely on quality-control inspectors to catch problems at the end of the line."

The argument over Japanese supplier standards has divided the U.S. parts industry for a decade. Many American firms who have cracked the market say that selling

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Mitsubishi establishing captive finance company

By Kristine Stiven Breese
AUTOMOTIVE NEWS STAFF REPORTER

LOS ANGELES — Mitsubishi Motor Sales of America Inc. is opening a captive finance company, Mitsubishi Motors Credit of America.

Mitsubishi will acquire the automobile, light-truck and commercial-truck assets of Mitsubishi Acceptance Corp., a subsidiary of Mitsubishi Corp. in Japan. Mitsubishi Acceptance provides financing for Mitsubishi's vehicle and heavy-equipment operations in the United States.

"A captive finance company is essential to any distributor or manufacturer with significant sales in the U.S.," said Richard Recchia, executive vice president of Mitsubishi Motor Sales. "It's getting even more critical because banks seem to be withdrawing from the retail end of the finance business."

Mitsubishi Motors Credit should begin operations April 1.

The finance arm will be headed by Chuck Tredway, executive vice president and general manager. He was with Marine Midland Auto Finance Corp.

Mitsubishi executives shared details of the plan in meetings with dealers last week and acknowledged that dealers have not had the most pleasant experiences with Mitsubishi Acceptance.

According to a Mitsubishi source, Mitsubishi Acceptance had the floorplan business for about 10 percent of the company's 500 dealers. And about 50 percent of the dealers used Mitsubishi Acceptance for at least some of their retail loans, but the source said most dealers used it sparingly.

Mitsubishi Motors Credit is expected to eventually handle retail business for 75 to 80 percent of Mitsubishi dealers and floorplanning for at least 25 percent.

Mitsubishi says it will model its programs after those of General Motors Acceptance Corp.

Mitsubishi will join the growing list of importers that have established finance subsidiaries to provide their dealers with competitive wholesale and retail financing.

It could take as long as three months before the new business is operating nationwide.

Sentra, Sonata post largest gains in 1990

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

Domestic content of two transplant vehicles increased more than 20 percent for the 1991 model year. They are among the eight Asian-badged products whose domestic content increased.

The Nissan Sentra, produced in Smyrna, Tenn., jumped more than 21 percent to 74.6 percent domestic content for the current model year, after a model changeover.

The Hyundai Sonata, produced in Bromont, Quebec, rose nearly 30 percent in North American content, from 27 percent to 35 percent. That change was partially due to the addition of stamping presses at the assembly plant, which allowed Hyundai Canada Inc. to begin using North American steel.

Models built in the United States by Honda, Toyota, Isuzu and Subaru also boosted domestic content for the 1991 model year.

The levels are determined by a complex formula that includes not only parts but factors as diverse as labor costs, plant investment and insurance expenses.

Although no change occurred at one of the biggest-volume transplants — Toyota's Camry facility in Georgetown, Ky. — that car is expected to increase more than 15 percent later this year when a new model is introduced.

The change will help boost Toyota's total U.S. parts purchases to $1.2 billion a year — up from $700 million this year and $70 million in 1988.

The Mazda MX-6 and 626, built by Mazda in Flat Rock, Mich., will increase into the 70 to 75 percent range in the 1992 model year, when a model change occurs there. It is 65 to 70 percent now.

Nissan took another large step toward increasing domestic content in January when it announced plans to build a $600 million engine plant in Decherd, Tenn.

Diamond-Star Motors Corp., the Chrysler Corp.-Mitsubishi Motors Corp. joint venture in Normal, Ill., also projects some gain from using Chrysler-built engines in some of its products after 1993.

DOMESTIC CONTENT OF TRANSPLANT VEHICLES

Vehicle	Pct. 1991	Pct. 1990	Major component operations
Honda Accord (Marysville, Ohio)	75	72	Engine manufacturing and assembly; stamping; foundry
Toyota Corolla/Geo Prizm (Fremont, Calif.)	75	70	Stamping
Nissan Sentra	74.6	61.6	Engine assembly; stamping
Nissan Pickup (Smyrna, Tenn.)	57	56	Stamping
Isuzu Rodeo	73	N.A.	Stamping
Isuzu Pickup	65	55	Stamping
Subaru Legacy (Lafayette, Ind.)	53	50	Stamping
Honda Civic (East Liberty, Ohio; Alliston, Ontario)	72	70	Engine manufacturing and assembly; stamping; foundry
Mazda 626	65-70*	65-70	Stamping
Mazda MX-6	65-70*	65-70	Stamping
Ford Probe (Flat Rock, Mich.)	65-70*	65-70	Stamping
Toyota Camry (Georgetown, Ky.)	65	65	Engine machining and assembly; stamping
Mitsubishi Eclipse/Eagle Talon/ Plymouth Laser	60	60	Stamping
Mitsubishi Mirage/Eagle Summit (Normal, Ill.)	60	60	Stamping
Toyota Corolla (Cambridge, Ontario)	53	53	Stamping
Suzuki Swift/Geo Storm	50**	N.A.	Stamping
Suzuki Sidekick/Geo Tracker (Ingersoll, Ontario)	50**	50**	Stamping
Hyundai Sonata (Bromont, Quebec)	35	27	Stamping

*Average of three cars built at Flat Rock. Some Probe models carry six-cylinder engines made by Ford Motor Co.
**Estimate. CAMI officials decline to specify North American content levels, saying, "We feel we are meeting the requirements of the U.S.-Canadian Free Trade Pact." That agreement requires exported vehicles to have at least 50 percent North American content. The U.S. government has questioned CAMI's method of counting.

Basing a CAFE increase on percentages would force Japanese automakers to make the biggest gains in fuel economy, argues Nissan Motor Manufacturing President Jerry Benefield.

Nissan executive says CAFE bill would penalize the fuel-efficient

By Lindsay Chappell
AUTOMOTIVE NEWS STAFF REPORTER

At least one transplant executive has come out swinging against new corporate average fuel economy proposals.

Jerry Benefield, president and chief executive officer of Nissan Motor Manufacturing Corp. U.S.A., complained to the Senate Consumer Subcommittee last month that a Senate bill that would require carmakers to improve fleet efficiencies is "anti-competitive" and "self-defeating."

The bill, sponsored by Sen. Richard Bryan, D-Nev., would dictate company-by-company increases in CAFE on a percentage basis. Benefield said the result would penalize carmakers with high CAFE scores because they would have to make the biggest gains while it would reward those with lower averages.

CAFE standards may affect the transplants' efforts to increase their North American content. As Japanese carmakers shift more production to U.S. plants and raise the products' domestic content, they will create domestic "fleets" that must meet the same standards but are counted separately from "import" fleets.

Benefield proposed instead that different standards be established for every class of car. He suggested offering "market-based incentives to induce consumers to buy fuel-efficient vehicles."

In criticizing Bryan's bill, Benefield pointed out that Nissan's 1988 CAFE rating of 30.8 mpg would require Nissan to meet a new standard of 37 mpg in 1996. But another carmaker, with a rating of 23 mpg, would be required to improve only to 27.6 mpg, he said.

> "Nissan would be fined if its CAFE were 36 mpg in 1996, and the other manufacturer would receive credits for achieving a fuel economy of 28 mpg."
> **Jerry Benefield**
> Nissan executive

"Nissan would be fined if its CAFE were 36 mpg in 1996, and the other manufacturer would receive credits for achieving a fuel economy of 28 mpg," he told the subcommittee. Companies that exceed the CAFE standards build up credits that can be applied to their scores in other years.

Historically, Japanese carmakers such as Nissan have had little difficulty meeting CAFE requirements, largely because of the high volume of small, fuel-efficient cars in their fleets.

A number of Japanese producers, including Nissan, Toyota Motor Corp. and Honda Motor Co., have added larger, less-efficient cars to their mix in recent years, such as Nissan's V-8-powered Infiniti Q45.

The three are also building more of their fuel-efficient cars in the United States, which could have long-term CAFE effects on their Japanese fleets.

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CHINA

FROM PAGE 3

the motor industry comes just a year after a major slump in worldwide demand, and at a time when the more developed markets of Eastern Europe and Thailand have emerged as strong competitors for automotive investment.

"It seems," says Bruno Grundeler, the general manager of Guangzhou Peugeot Automobile CY Ltd., "that if all these projects get through at the same time, a very high rate of market growth would be required."

Output claims doubted

One long-time observer of China's industry, in Detroit to attend the Society of Automotive Engineers convention, was less circumspect, however:

"There's not a snowball's chance in hell of China attaining that kind of production in this decade," the executive, who insisted on anonymity, said. "Someday, certainly. But not anytime soon."

Executives with experience in the region point out that problems of producing in China range from unskilled and unmotivated workers, to unreliable infrastructure and communications systems, to the lack of universal standards of quality. Materials and parts are in perpetual short supply and, when they arrive, often fail to meet engineering and quality specifications.

Even the size of the country works against efficient production, experts point out. The engineering and proving ground for the First Automobile Works, the huge truck and carmaking complex in Changchun, in the north, is 2,500 miles away on Hainan Island, in the south. The journey takes 10 days for trucks to complete.

Beyond such operational difficulties, these executives say, is the far more serious one of China's chronic shortage of hard currency.

Under existing joint-venture agreements, Western carmakers "sell" most of their output to the state in exchange for allocations of enough hard currency to import more parts. But in practice, Beijing has been so crimped for foreign exchange that it often has had to allocate it to other industries.

This has left Western automakers short of enough parts to maintain scheduled production.

Quality problems linger

The currency problem is supposed to be eased as the joint-ventures increasingly turn to Chinese suppliers — in some proposals to as high as 90 percent local content — while shipping increased numbers of cars abroad, where they would earn hard currency. But industry executives point to a central flaw in the planners' scenario: China's inability to quickly come up to world-class standards of automotive quality.

"They can't export the cars they make now because of quality, and they're produced with parts imported from the West," observed Nigel Wemyss, a director of PRS Consulting Group in London. "It's absurd to think that the problem will be solved with higher local content, at least in the foreseeable future. It can't be done."

Still, there is evidence that the expansion of the car industry has been given unqualified backing at the highest levels of the Communist Party, a vitally important factor in marshalling priority claims on resources in China's centrally-planned economy.

China's commitment

China's State Council first outlined its automotive program in 1987, when it decided to concentrate car production at what it called three "big" units, in Changchun, Wuhan and Shanghai. The three big complexes would be complemented by three "small" units, in Beijing, Tianjin and Guangzhou.

At the same time, the council decreed that the country's emphasis on truck production was to give way to a greater concentration on carmaking. It also was decided to initiate an export drive.

That program, which rests on the core premise that domestic demand will rise from virtually zero now to 800,000 cars a year by about 1997, is now more or less in place.

The first, and most financially tenuous, of the new projects was signed into effect only days after the June 4, 1989, massacre of pro-democracy protesters in Beijing's Tiananmen Square. Under negotiation well before China's leadership launched its pro-democracy crackdown, it involves the construction by Panda Motor Corp. of a greenfields plant to produce 300,000 cars a year by the mid-1990s.

Unlike every other foreign carmaking venture in China, Panda is 100-percent foreign owned and, as such, exists outside the parameters of central planning. It is required to export its entire output and remain self-funding for components and other imports. The venture is controlled and bankrolled by Korean Reverend Sun Myung Moon's Unification Church.

The company claims to have invested $250 million to date in the project, and has a partly completed plant in Dan Shun, near the border with Hong Kong, to show for it.

Panda says it will produce a prototype car before the end of the year, and proceed to assembly of 1.6-liter sedans and minivans from kits in 1992. Although the company has yet to say what car it intends to produce, analysts say that both the Yugo and a modified Lada are under consideration.

Industry experts are almost universally skeptical of Panda's ability to pull off the grandiose project, even though the company demonstrated considerable political clout last year in winning a visit to the plant site by Premier Li Peng.

"Where will they find an export market on that scale in today's quality-driven world car market?" the Detroit visitor, who has studied the Panda project, asked. "It's more than unlikely, it's highly improbable."

VW, Citroen production

Meanwhile, the agreement between Volkswagen and First Automobile Works to build an $800 million car plant in the northeastern city of Changchun, signed last November, rests on more solid ground. The production of Golfs and Jettas from kits is scheduled to begin by 1994, and VW is committed to exporting 15 percent.

Volkswagen eventually could invest some $980 million in the project, although less is being committed at this stage. It also has agreed to take 100,000 Chinese-made engines for its own use outside China and to buy about $33.5 million worth of components a year locally.

VW already is China's largest carmaker through its stake in the Shanghai Volkswagen venture, which produces Santana sedans. It produced some 19,000 vehicles there last year, and plans to produce 25,000 this year. It will mount its first export drive this year, and hopes to sell as many as 1,000 cars in less-developed markets like Vietnam and North Korea.

The third leg of the expansion program comes from France's Automobiles Citroen, a unit of the Peugeot Group, which recently signed an agreement with the Second Automobile Works in Wuhan.

Planners envision that the plant will be turning out 300,000 mid-range "FX" sedans a year by the end of the decade. Chen Qingtai, director of the Second Automobile Works, was quoted in the official China Daily newspaper recently as saying that the plant will open in 1994 with a production capacity of 150,000 cars a year.

Citroen has a 30 percent stake in the venture, which will cost an estimated $865 million. The French government has heavily supported the project by underwriting loans for some 50 percent of the total investment.

The joint-venture agreement, which runs for 35 years, stipulates that 30 percent of the plant's output will be exported.

Like VW, Citroen already has a stake in China through Peugeot, which produces pickups and 505 station wagons and sedans in the southern city of Guangzhou.

Although Peugeot had earlier been given government approval to produce 8,500 units last year, the venture turned out fewer than 6,000 — or about 30 percent fewer than quota. Industry executives familiar with the venture scoff at Peugeot's explanation that a French dock strike caused the shortfall by interfering with deliveries to the plant.

"Pure and simple, they couldn't get foreign-exchange authorization from the bureaucrats to import the parts to keep the plant going," said one. "There isn't enough hard currency to go around, and they decided to spend it somewhere else."

Peugeot hopes to boost Guangzhou output to 10,000 units this year and 30,000 units a year by the end of 1992.

Beijing Jeep

The other existing major joint vehicle producer, Beijing Jeep, seems to have emerged from a troubled year in better shape. China's pioneering automotive joint venture, in which Chrysler Corp. holds a 31.4 percent stake, made 7,500 Cherokee Jeeps in 1990, up from 6,300 in 1989. In October, it opened an engine factory that will make it self-sufficient in engine supplies.

Meanwhile, production of the aging Russian-designed 202N general purpose vehicle has fallen from 35,000 in 1989 to around 32,000 units last year.

Not surprisingly, every major carmaker in the world has examined the possibility of gaining a toehold in the vast Chinese market. With 1.1 billion consumers, and the world's third lowest rate of car ownership at 0.27 per thousand, China's potential has drawn marketers like moths to a flame.

"Every one of them is looking at the 'billion pair of shoes market' in China, but it simply isn't there," says Don St. Pierre, former head of the U.S. side of Beijing Jeep.

He also is skeptical about export prospects: "I still have my one big question," he says. "Where are they going to go?"

With additional reporting and writing by International Editor James R. Crate in Detroit.

SUPERCARS

FROM PAGE 3

September. According to some recent reports, the car probably will not be produced in series, although Mercedes insiders say no final decision has been made.

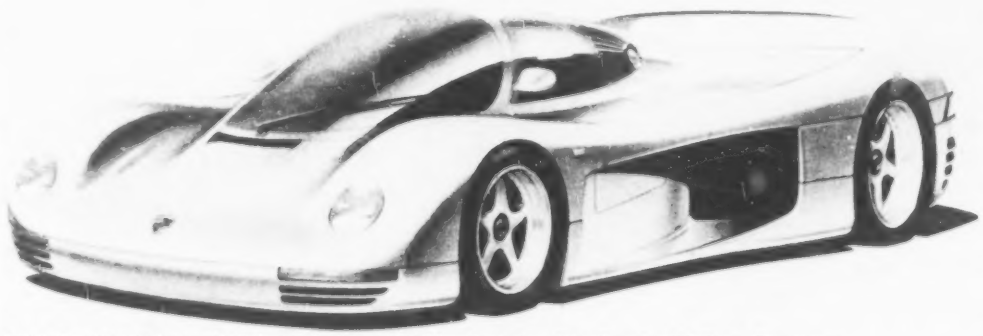
Meanwhile, Bugatti Automobili has just released pictures of its Marcello Gandini-designed 110T, a 12-cylinder twin-turbo model developing 550 hp.

Bugatti has denied persistent speculation that it is in financial trouble and won't meet its announced goal of rolling out the car on Sept. 15, the 110th birthday of Ettore Bugatti. Bugatti officials have announced that the program, to be held in Paris, will be carried out on schedule and that deliveries will begin in mid-1992.

Elsewhere, Jaguar's 220-mph XJ220, first shown as a styling model at the 1988 Birmingham Show, is scheduled to go into production late this year, according to a company spokesman. Deliveries of the first of 350 units to be produced probably will begin in about one year, he said.

The price, including taxes, was set at £367,000 (about $700,000) in December 1989, but price on delivery will be adjusted for inflation.

So far, three prototypes have been built. The XJ220 has changed considerably since it was shown 2½ years ago. Instead of using a V-12, it is powered by a 3.5-liter twin-turbo V-6 mounted amidship.



British firm Vern Schuppan Ltd. is developing a street-legal version of the Porsche 962 Group C race car.

Maserati S.p.A. may enter the supercar category with the Gandini-designed Chubasco that was shown as a model at the company's annual December press conference. If Maserati goes ahead with the project, the Chubasco would be powered by a 430-hp, twin-turbo 3.2-liter 32-valve V-8.

Perhaps the granddaddy of the current generation of supercars, the Ferrari F40, will be succeeded in the mid-1990s by a limited-edition model with a normally aspirated 12-cylinder engine. The F40 uses a twin-turbo V-8.

The Aston Martin Virage Vantage, the ultra-performance version of the new fixed-head Virage coupe, was expected to be previewed this week at Geneva. But company officials have decided to hold off showing the supercar.

The 190-mph, twin-turbocharged, 500-horsepower Vantage will be the third version of the Virage that debuted at the 1988 Birmingham Show. The convertible version was unveiled at Birmingham last fall, and the Vantage now is expected at the 1992 Birmingham exhibition.

Michael Kimberley, chairman of Group Lotus, said his company's M300 supercar project remains on course — even though project leader Graham Atkins recently left the company. The M300 was reconfigured last year, and is now expected to be a lightweight hybrid model incorporating an electric motor for city driving.

"I believe the next high-performance supercar we do has to be ecologically correct," said Kimberley. "So we re-cast the project and are pushing the envelope."

But Kimberley declined to forecast when the M300 might enter production.

Porsche AG last year decided against building a street-legal version of its 962 Group C race car. But a British firm, Vern Schuppan Ltd., is attempting to develop one, to be called the Schuppan Porsche 962CR.

Schuppan, an ex-race driver, reportedly will build a modified 962 with changes in front and rear, a new monocoque chassis and carbon composite body. It will take the same 3.3-liter, twin-turbo six-cylinder engine used in the Porsche race car.

Porsche's original plan called for a series of no more than 100 units priced at well over 1 million marks (about $660,000) apiece. But according to sources, company executives felt the intensive re-engineering effort that would have been required to remake the 962 into a street-legal machine could not be justified.

Porsche's limited edition 959 supercar project in the mid-1980s was a major image success and led to engineering breakthroughs, but the company never recouped development costs.

Another firm apparently interested in joining the ranks of supercar manufacturers is the British racing-engine builder, BRM. The company reportedly plans to offer a $400,000 road car powered by a 60-valve V-12 beginning in late 1992. Initial plans call for 50 units a year to be produced, although no prototype yet exists.

New desert battle: Car sales to Kuwait, Iraq

The sales battle to repopulate Kuwait with cars will pit Japanese makers against Americans.

Before Iraq's Aug. 2 invasion of Kuwait, Japanese reliability had won 60 to 75 percent of the Middle East market, but the allies who sent soldiers expect to cash in on political and emotional chips to increase their share.

General Motors is the dominant Big 3 player there, and Kuwaiti car dealers were in Detroit Thursday ordering at least 1,000 units, some of them program cars coming back from daily rental fleets.

Kuwait's government ordered at least $10 million in vehicles from GM, Ford Motor Co. and Chrysler Corp., said Ibrahim al-Shaheen, an architect who heads Kuwait's Emergency Recovery Program.

GM will supply 500 vehicles, including 300 Chevrolet Caprices that will be used as police cars, a GM spokesman said. Most others are light trucks, many being Suburban-based ambulances.

GM's two Kuwaiti vehicle dealers, K.Y. Alghanim and Mohammed Behbehani, were in Detroit last week ordering the vehicles that were most popular before the war: Chevrolet Caprices, Suburbans, Corsicas and Berettas, said GM President Lloyd Reuss, who sat in on part of the order meetings.

Spokesman John Pekarek said the program cars included in the dealer order "will have to be properly homologated, but that requires some very slight changes. For that market, very little has to be done."

Jack Smith, GM's vice chairman for international operations, said last week he expects Kuwait to buy well over 100,000 cars in its first year of rebuilding. GM hopes to expand its one-third share of the Kuwait market at the expense of Japanese makers, who had 45 percent.

THE ASSOCIATED PRESS

The scorched remains of military and civilian vehicles litter the main highway leading from Kuwait City to Basra and Baghdad. The vehicles were destroyed in allied bombing raids against the retreating Iraqi army.

Chrysler and Ford confirmed last week they were negotiating with Kuwait, but neither would discuss the contracts described by al-Shaheen.

Chrysler was just getting ready to resume doing business in the Middle East last summer when the invasion occurred. It sold no cars in Kuwait in 1990, and less than 600 in 1989.

When Ford ceased delivery of vehicles to Kuwait in July, the company had sold over 1,000 vehicles to Kuwait and had delivered 781. In 1989, Ford sold 1,209 vehicles to Kuwait.

The Japanese, who sold 23,000 cars in Kuwait in 1989, were cautious in their comments from Tokyo, but in the Middle East, distributors of Japanese brands said they would thrive in the coming months.

"In the next few months we expect a miniboom," said Maher Nabawi, product planning manager for Abdul Latif Jameel, the Toyota distributor in Saudi Arabia.

"There will be heavy demand for commercial vehicles to aid in the reconstruction of Kuwait and Iraq. Vehicles will go from Saudi Arabia. Toyota will do very well because of our reputation, our market share."

In Kuwait, a spokesman for Al Nasser Sayer & Sons, Toyota's distributors, said, "The Kuwait motor market will have a huge potential, and we are preparing ourselves to meet it."

In Tokyo, Toyota said "it will take time to resume business."

Low prices propelled the Japanese share of the Middle East car market beginning in the mid 1970s, but price advantages have moved to U.S. cars as the dollar weakens.

"It's going to be great," said Terry Indge, who directs GM sales in the Middle East from offices in Dubai. "Look at the dollar-yen rate. It's most competitive."

Besides Saudi Arabia and Kuwait, GM also sees a potential customer in a defeated enemy. "Iraq is the big new potential market," said Indge.

The emotional leftovers of war could have as much influence on the market as price or quality. Last December, as the allies built up their invasion forces, GM's Indge predicted that the redesigned Chevrolet Caprice would sell well because of "a good reputation of getting people out of Kuwait. It turned out to be a good cross-dessert vehicle. Iraqi troops in off-road vehicles couldn't keep up with them."

Contributing to this story were Automotive News Staff Reporters Phil Frame, Kathy Jackson and Mary Connelly in Detroit and Mary Ann Maskery in Tokyo and Special Correspondent Lekha Rai in Dubai. It was written by Assistant Managing Editor William R. Diem.

EC LOBBY

FROM PAGE 4

impatient," said an ACEA official last week.

Still, French and Italian government officials are said to have come around, isolating Calvet.

Fiat Auto Managing Director Giorgio Garuzzo met recently in Brussels with Bangemann, according to a Fiat Auto spokesman. EC officials have termed it a positive meeting.

"There is now a new organization and the great opposer is out," said a Fiat executive. "We think these problems with the Japanese should be solved in a European scale. We are definitely less sharply opposed than what Calvet is."

But Calvet is expected to remain a vocal force even as his influence has waned.

"Calvet can still paddle his canoe, but he is not in a position to veto," said Rhys.

The Fiat spokesman said the Bangemann position is closer to the former position of the German carmakers, although "now, the Germans are less liberal."

The spokesman called for a "slight and progressive opening" of the market, with Japanese share not rising much higher than the present level — "certainly not rising by 2 or 3 percent a year."

But while an agreement on the length of the transition period is considered likely, the trick may be to align all sides on how Japanese transplants should be treated.

The Fiat spokesman said Japan's transplant production in Europe should probably be counted toward any quota ceiling.

"What worries us is that some Europeans want to count our transplants," said Moriharu Shizume, head of the Paris office of the Japan Automobile Manufacturers Association. "We are against that and MITI (Japan's Ministry of International Trade and Industry) is against that."

Shizume said MITI has agreed to a six-year temporary period of restrictions on direct imports. But he said MITI will not concur with limits on transplant output.

Rhys advocates letting the Japanese carmakers seek their own balance between direct imports and local production.

"It is best to let them work it out themselves, as they have in the United States," where they command a 24 percent share of the car and light-truck market, he said. "They should let it be an unspoken trade-off and not push too much on it."

SALES

FROM PAGE 1

in 10-day sales. At 83,598, its combined car and truck sales, domestic and imported, rose 3.2 percent, but the extra selling day this year was responsible.

Ford noted "some improvement" in dealer orders in February, but not enough to change its production schedules, said Joel Pitcoff, research and analysis manager.

"When we say we base production on dealer orders, that's not some kind of euphemism," Pitcoff said. "That means how many orders we have in our fists. We don't build cars for practice."

He said that for the first 50 days of 1991, the seasonally adjusted annual selling rate for cars and trucks, including heavy trucks, was 11.5 million units. That compares with 1990 sales of 14.2 million.

GM sold 109,963 vehicles, down from 120,240 last year. *Automotive News* estimated that Chrysler Corp. sales declined 2.4 percent to 39,428 cars and trucks. Chrysler refuses to disclose 10-day sales.

Even before the cease-fire, consumer confidence rose in February, according to the Consumer Confidence Index compiled by The Conference Board, based on a survey of 5,000 households. Linden is executive director of the board's Consumer Research Center.

About 7.2 percent of the survey respondents said they plan to buy an automobile in the next six months, the highest such response since September and about equal to the year-ago month.

Overall, the February index was 57.7 compared to 55.1 in January, but the index was 106.7 in February 1990. The index uses 1985 as a 100-point baseline.

Automotive News Editor Peter Brown and Special Correspondent Colleen McDonald contributed to this report.

Japan's cuts hold

TOKYO — Cutbacks in production and exports to the United States announced last month will continue despite the end to the Gulf War.

Toyota Motor Corp., which is reducing production this month by 10,000 units, says it may adjust April production after studying February sales.

Honda Motor Co., which is cutting back by 25,000 through March, says it may cut even more units in April "because the basic fundamentals of the U.S. market do not appear to be recovering."

— Mary Ann Maskery

10-DAY SALES

DOMESTIC BUILT CARS

	Feb. 11-20. 1991	% change '91 vs. '90
Eagle	1,030	– 3.8
Chrysler	3,502	+ 5.2
Dodge	10,094	+ 5.1
Plymouth	5,974	– 7.1
CHRYSLER CORP.†	**20,600**	**+ 0.8**
Ford	34,407	+ 7.3
Lincoln	6,308	– 6.2
Mercury	8,438	+ 8.4
FORD MOTOR	**49,153**	**+ 5.5**
Buick	15,922	+ 16.2
Cadillac	4,270	– 37.6
Chevrolet	29,476	+ 2.5
Oldsmobile	11,729	+ 7.6
Pontiac	10,638	– 29.2
Saturn	854	-
GENERAL MTRS.	**72,889**	**– 3.1**
HONDA	**9,838**	**+ 10.9**
MAZDA	**3,978**	**+ 211.5**
MITSUBISHI	**2,159**	**+ 212.0**
NISSAN	**2,616**	**+ 14.2**
SUBARU	**1,074**	**—**
SUZUKI	**19**	**—**
TOYOTA	**5,854**	**– 31.0**
U.S. CAR TOTAL	**168,180**	**+ 2.6**
TRUCKS		
Chrysler	187	+ 306.5
Dodge	10,098	– 14.1
Jeep	4,301	– 15.5
Plymouth	4,114	+ 53.7
CHRYSLER CORP.†	**18,700**	**– 4.4**
FORD MOTOR	**31,458**	**– 3.1**
Chevrolet	26,657	– 10.3
GMC	6,980	– 7.8
Oldsmobile	575	+ 35.9
Pontiac	526	– 9.8
GENERAL MTRS.	**34,738**	**– 9.3**
ISUZU	**757**	**—**
MAZDA	**286**	**—**
NISSAN	**3,034**	**– 13.6**
SUZUKI	**147**	**—**
U.S. TRK. TOTAL	**89,120**	**– 5.0**
U.S. CAR-TRUCK TOTAL	**257,300**	**– 0.2**

†Estimated

IMPORTED CARS

Reported		
Ford	865	– 41.8
Mercury	2,122	+ 374.7
FORD MOTOR	**2,987**	**+ 54.6**
Chevrolet/Geo	1,870	– 68.4
Pontiac	463	– 38.7
GENERAL MTRS.	**2,333**	**– 65.0**
Acura	3,343	– 8.6
Honda	4,685	– 13.4
HONDA	**8,028**	**+ 11.3**
SUZUKI	**194**	**+ 65.8**
Lexus	1,348	+ 9.7
Toyota	8,048	– 7.8
TOYOTA	**9,396**	**– 5.6**
Total Reported	**22,938**	**– 11.4**
Estimated*		
ALFA ROMEO*	**50**	**—**
ASTON MARTIN*	**2**	**—**
BMW*	**764**	**—**
Eagle	354	—
Chrysler	0	—
Dodge	465	—
Plymouth	503	—
CHRYSLER CORP.*	**1,322**	**—**
DAIHATSU*	**134**	**—**
FERRARI*	**24**	**—**
HYUNDAI*	**2,253**	**—**
ISUZU*	**137**	**—**
JAGUAR*	**153**	**—**
LAMBORGHINI*	**4**	**—**
LOTUS*	**8**	**—**
MASERATI*	**6**	**—**
MAZDA*	**2,085**	**—**
MERCEDES-BENZ*	**1,013**	**—**
MITSUBISHI*	**1,485**	**—**
Infiniti	559	—
Nissan	4,574	—
NISSAN*	**5,133**	**—**
PEUGEOT*	**104**	**—**
PORSCHE*	**73**	**—**
ROLLS/BENTLEY*	**30**	**—**
SAAB*	**205**	**—**
STERLING*	**62**	**—**
SUBARU*	**1,285**	**—**
Audi	253	—
Volkswagen	1,282	—
VOLKSWAGEN*	**1,535**	**—**
VOLVO*	**1,577**	**—**
YUGO*	**111**	**—**
Total Estimated*	**19,555**	**—**
IMPORTED CAR TOTAL	**42,493**	**—**
IMPORTED TRUCKS		
GENERAL MTRS.	**3**	**– 94.4**
SUZUKI	**643**	**+ 80.6**
TOYOTA	**6,057**	**+ 11.8**
Total Reported	**6,703**	**+ 14.3**
Estimated*		
CHRYSLER*	**128**	**—**
DAIHATSU*	**79**	**—**
ISUZU*	**1,736**	**—**
MAZDA*	**2,580**	**—**
MITSUBISHI*	**796**	**—**
NISSAN*	**3,491**	**—**
RANGE ROVER*	**63**	**—**
VOLKSWAGEN*	**96**	**—**
Total Estimated*	**8,969**	**—**
IMPORTED TRUCK TOTAL	**15,672**	**—**
IMPORT CAR-TRUCK TOTAL	**58,165**	**—**

TOTAL INDUSTRY CARS & TRKS.	**315,465**	**– 4.6**

There were 9 selling days in the period this year and 8 last year.

West may export clean air

By Greg Bowens
SPECIAL CORRESPONDENT

Western car manufacturers can make great strides in the Eastern Europe automotive market if they can supply countries with the vehicle pollution control technology they so desperately need.

M.P. Walsh, an industry consultant, told an SAE technical session about the rise in automotive-related pollution in Eastern Europe and Europe's move toward establishing continent-wide pollution control standards.

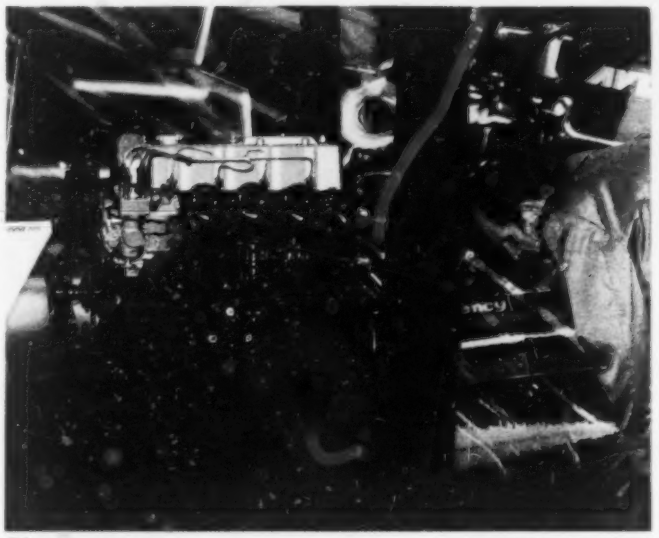
Walsh documented the pollution problems of Hungary, a country with a small automobile industry, to show the health and environmental effects that a little fleet of cars not equipped with pollution control technology can have on a nation. "Eastern Europe has a very serious and documented pollution problem," he said.

The number of registered vehicles in Hungary has grown from a 1970s average of 240,000 to more than 2 million today. During that time, the incidence of bronchitis among adults doubled, two-thirds of the country's rainfall has become acidified, and pollution-caused corrosion continues to cost the nation billions.

"Unless modern vehicle controls are implemented, a vehicle growth of 5, 6 or 7 percent will cause skyrocketing pollution," said Walsh.

He said the Hungarian government is taking measures to control the problem but will prove to be insignificant unless pollution control is added to cars now.

He said that refitting two-stroke engines with catalytic converters or replacing them calls for a large service industry and "that's a tall order in light of the economic problems these countries have."



AUTOMOTIVE NEWS/JOE WILSSENS

Clean power

A visitor inspects a methanol-powered engine designed by AVL North America Inc. at the SAE show in Detroit.

Reformulated gas won't end metropolitan air problems

By Jack Keebler
AUTOMOTIVE NEWS STAFF REPORTER

DETROIT — Reformulated gasolines alone will never provide the emissions cleanup of the best alternative fuels.

But there is no question that government and the vehicle industry expect gasolines with altered chemistry to play an important role in cleaning up the air in metropolitan areas.

At the SAE International Congress last week, Gary A. Schoonveld, a senior research engineer for Phillips 66 Co., presented a paper on the beneficial effect of reformulated gasoline on vehicle emissions.

"Gasolines will never be as clean as something like natural gas that provides up to 60 percent hydrocarbon emissions reduction," said Schoonveld. "We're looking for more like 20 to 30 percent reductions from gasolines. But that means we'll still be playing an important part in clean-air requirements."

Schoonveld told *Automotive News* several gasoline supply companies have already introduced their versions of reformulated gasolines to gain experience in making, transporting and marketing them.

The Clean Air Act amendments of 1990 require reformulated fuels use in nine metropolitan areas in 1995. In addition, any metropolitan area that does not meet national air-quality standards may choose to adopt the regulation and require reformulated fuels.

Phillips' test program in the St. Louis area has shown significant reductions of carbon monoxide, total hydrocarbons, oxides of nitrogen and benzene. The program conducted tests on eight vehicles ranging in model years from 1973 to 1989.

Older vehicles (pre-1980) also showed significant reductions of evaporative hydrocarbon emissions, carbon monoxide, oxides of nitrogen and benzene — but increases in hot-soak hydrocarbon emissions. The study also found that all the cars produced higher formaldehyde emissions.

An exact recipe for reformulated gasoline has not been established. For that reason, the price of the fuel and the cost of reconfiguring refinery equipment is still up in the air. But on Nov. 15, the EPA will release its rule on gasoline reformulation. It will likely be a performance standard that will measure the new fuel's ability to provide some percentage of emissions cleanup against a baseline fuel.

Schoonveld said American Petroleum Institute estimates indicate that the chemical changes to gasoline would cost consumers approximately 10 to 15 cents per gallon. The cost of refinery changes for individual companies could be measured in billions of dollars.

Other gasoline suppliers offering reformulated fuels are ARCO, Diamond Shamrock, Conoco, Marathon, Shell, Exxon and Chevron. The first reformulated gasoline on the market was EC-1 from ARCO. It was marketed in California. The fuels also are marketed in Denver, Detroit and St. Louis.

Optimism charges talks on electric cars

By William R. Diem
ASSISTANT MANAGING EDITOR

DETROIT — In Los Angeles and Zurich, citizens concerned with the environment do what the marketplace never did: Create a demand for electrically powered vehicles.

And inside a windowless room at the SAE International Congress and Exposition last week, 120 engineers talked about how they would build them.

The engineers were as cautious as Gen. Colin Powell in mid-January, or Coach Bobby Knight in mid-March. They face a host of difficulties, and they gathered to go over them. Behind their words was confidence in victory.

"Hopefully, we'll be able to meet California standards," said an Italian. "We are getting close to having something people are going to like," said an American. "We will have electric cars for California," said a German.

The meeting could have been more global. Their companies forbade three authors of papers from flying here because they fear terrorism, so stand-ins spoke for Karl-Nikolaus Regar of BMW AG, G. Brusaglino of Fiat S.p.A. and A. Kalberlah of Volkswagen AG. No Big 3 engineers delivered papers, but they swelled the audience to hear their research partners.

The papers spoke for themselves.

Right now, American vans and minivans get 70 miles per charge on lead-acid or nickel-iron batteries and "provide suitable performance on urban routes."

Right now, BMW's Elektro-Antrieb concept car ranges about 94 miles on its experimental sodium-sulfur battery pack. Considering the pollution from a power plant used to charge it up, the car accounts for one-tenth the nitrogen oxide, one-thirtieth the hydrocarbons and one-hundredth the carbon monoxide produced by a standard BMW 3-series car.

Right now, VW is building 20 hybrid-drive Golfs for testing in Zurich, Switzerland, this summer. The Golfs use batteries or a diesel engine, depending on driving need. Sacrificing no performance, they consume only a third as much diesel fuel as a regular Golf.

Right now, Fiat is selling electric vehicles to the public. The Panda Elettra, introduced a year ago at the Geneva auto show, went on sale last summer for $20,000. The company built 200 in 1990 and expects to build 1,000 this year.

If the success so far is tangible, so are the challenges.

The 10 papers in the Electric Vehicle Development session and the people who talked about them afterward raised obstacles to be surmounted before 1998, when California requires zero-emission or ultra-low emission vehicles.

It is generally agreed that customers will demand performance akin to what they get from their internal combustion cars, said Scott Keller, a senior test engineer at Electrotek Concepts Inc. in Chattanooga, Tenn. The central problem is that no battery can yet provide it.

Current choices are heavy lead-acid and expensive nickel-cadmium. There are laboratory hopes for nickel-iron, sodium-sulfur and solid-state capacitor-like devices such as the one Isuzu Motor Co. announced to the delight of the Japanese stock market last April.

Southern California Edison and Dreisbach ElectroMotive Inc. of Santa Barbara, Calif., presented a paper describing Dreisbach's zinc-air battery. They said it would give a two-seat sports car a range of 300 miles and cost less to operate over five years than a fuel-burner, even with gasoline at $1 a gallon.

Even if a power choice were obvious, inventors do not agree about the rest.

Both alternating current and direct current are used in motors. A Chrysler Corp. minivan modified by Eaton Corp. and BMW's sodium-sulfur car used AC; the Fiat Elettra and a General Motors van modified by Vehma International, a subsidiary of Magna International, went DC. Ultimately, said Andy Burke of the Idaho National Engineering Laboratory, the choice will be made on cost, not performance.

Transmissions are even more diverse. Because electric motors pull about as hard at one speed as another, a transmission isn't even needed, as on the absent GM Impact, America's most famous electric car.

One truism of SAE expositions is the absence of something could be a sign the product has moved out of the blue-sky stage and into commercial development. GM has said it is going ahead with plans to produce the quick and quiet two-seater it introduced at the 1990 auto show in Los Angeles.

Vehma used what amounts to a one-speed transmission to reduce driveshaft speed on its van. BMW's concept car uses a two-speed manual, and Fiat's Elettra has four speeds. Engineers from Epilogics Inc. of Los Gatos, Calif., introduced a continuously variable transmission that they say reduces power drain during acceleration and improves energy recovery during braking by 58 percent.

There is no design argument over one small point: All the vehicles recharge batteries during braking by turning the motor into a generator, getting 4 to 15 percent of the energy back.

Bill Anderson of Unique Mobility Inc. in Englewood, Colo., introduced his company's DC electric motor that has a transmission-like feature. The driver throws a switch to change it from a high-torque series mode for acceleration to a high-speed parallel mode for cruising.

"The feeling is similar to that one would get in shifting from second gear to fourth or fifth gear in a conventional vehicle," he said. The motor was used on 18 of 32 solar-powered cars in the race sponsored by GM last summer.

Even in the electric atmosphere of the day-long session, there was a fair amount of sentiment for keeping internal combustion engines alive as part of hybrid or dual drive systems.

Fiat defines hybrid drives as two power sources working together, as in a test bus design by Unique Mobility and Ontario Bus Industries of Mississauga, Ontario, that runs on batteries, which it charges with a generator powered by natural gas. Dual drive is defined as switching between one power source and another, as in the Audi Duo concept car in which the driver chooses between using the front-wheel-drive standard engine or the rear-wheel-drive electric motor.

But then there is the Volkswagen EVW1, a Golf that switches automatically between engine and motor, choosing the least-polluting power source for the given speed and torque requirement. Or the Fiat test bus, which can run on battery alone, or draw current from overhead trolley lines, or use a diesel generator — a tri-hybrid.

After the session, engineers remained to define terms and discuss standards for tests and performance and other problems:

- Power consumption by power steering and brake systems at idle.
- Demands of air conditioning and heating systems.
- The need for proper chargers to prevent dirty electricity kickback problems for other utility customers.
- The performance cost of product-liability designing.
- Disposal or recycling of highly caustic battery substances.

The questions and frontiers lent a pioneering atmosphere to the evident enthusiasm.

"It's really a good turnout," said Keller, who presented a paper on Electrotek's testing of the GM van. "It's a lot more satisfying to give a paper in front of this many people instead of 20 or 30 like usual."

VARIOUS ELECTRIC VEHICLES IN USE

Table lists several current electric test vehicles. Some have been tested with various batteries and motors. Range and acceleration times are approximate, as not all have been tested under similar conditions.

Vehicle	Converter	Motor power (hp)	Battery type	Urban range (miles)	0-30 mph (seconds)
GMC passenger van	Vehma Int.	60	Pb	57	12.1
GMC cargo van	Vehma Int.	60	Pb	61	11.9
BMW Elektro-Antrieb	BMW AG	34	NaS	94	9.0
Chrysler minivan DSEP	Eaton Corp.	70	NiF	70	7.5
VW EVW1 Golf*	Volkswagen AG	8	Pb	13	—
Fiat Panda Elettra	Fiat SpA	12	Pb	44	10.0
Audi Duo*	Audi AG	12	Pb	13	—

Battery types: Pb, lead acid; NaS, sodium-sulfur; NiF, nickel-iron
*Dual or hybrid drive. Range and power for electric motor only.
Compiled from papers delivered to SAE Feb. 26, 1990

INCENTIVE WATCH
CUSTOMER INCENTIVES

	Rebates	Expiration Date
Chrysler Corp. (1989-90)		
Chrysler	$500-2,000	3/31
Dodge cars	$700-1,500	3/31
Dodge trucks	$500-2,500	3/31
Eagle	$700-1,500	3/31
Jeep	$500-2,000	3/31
Plymouth	$700-1,000	3/31
All minivans	$1,000	3/31
Finance rates in lieu of rebate start at 5.9 percent.		
Chrysler Corp. (1991)		
Chrysler	$500-1,000	3/31
Dodge cars	$500-1,000	3/31
Dodge truck	$300-1,500	3/31
Eagle	$400-700	3/31
Jeep	$700	3/31
Plymouth	$400-1,000	3/31
All minivans	$500	3/31
Finance rates in lieu of rebate start at 5.9 percent.		
Ford Motor Co. (1990)		
Ford Festiva	$700	4/10
Ranger	$1,500	4/10
Ford Motor Co. (1991)		
Ford Escort, Festiva	$500	4/10
Ranger	$1,000	4/10
Mercury Tracer	$500	4/10
Grand Marquis	$1,000	4/10
Finance rate, in lieu of rebate, starts at 7.9 percent for 48 months or less.		
General Motors (1990)		
Buick Reatta*	$2,000	4/7
Other Buick*	$250-1,000	4/7
Cadillac	$1,200	4/7
Chevrolet Geo	$300-800	4/7
Corvette	$3,000 (GM employees)	4/7
Other cars	$400-750	4/7
Trucks	$500-1,500	4/7
GMC	$500-1,500	4/7
Oldsmobile	$750-1,250	4/7
Pontiac Bonneville	$400-1,000	4/7
*Based on option package selected All makes except Cadillac offer cut-rate financing in lieu of rebates.		
General Motors (1991)		
Buick Reatta	$2,000*	4/7
Other Buick	$250-1,000*	4/7
Cadillac Brougham	$1,500	3/31
Chevrolet Geo	$300-800	4/7
Corvette	$3,000 (GM employees)	4/7
Other cars	$400-750	4/7
Trucks	$500-1,000	4/7
GMC	$500-1,000	4/7
Oldsmobile	$500-1,000	4/7
Pontiac	$400-750	4/7
*Based on option package selected		
Hyundai (1991)	$500-1,575	4/3
Mazda (1991)		
MX-6, 626	$1,500	4/3
Trucks	$500	4/3
Subaru		
Justy ECVT (1990-91)	$500	5/2
Loyale (1991)	$300-$1,050	3/4
Toyota (1991)		
Celica GT, 4Runner	$800 discount on options	10/1

INCENTIVE WATCH
DEALER INCENTIVES

	Rebate	Expiration Date
Chrysler Corp. (1990)		
Dodge Ram D-W, Club wagon, Ramcharger	$1,000	3/31
Jeep	$400-3,000	3/31
Chrysler Corp. (1991)		
Colt, Summit	$400-700	3/31
Dodge Trucks	$1,000	3/31
Jeep	$400-3,000	3/31
Ford Motor Co. (1990)		
Ford Taurus SHO	$3,000	4/10
Other cars	$800-1,500	4/10
Ford Bronco	$2,000	4/10
Other trucks	$900-1,100	4/10
Mercury Topaz	$800	4/10
Sable	$1,100	4/10
Cougar	$1,200	4/10
Grand Marquis	$1,500	4/10
All Lincoln	$1,000-2,000, based on sales	4/10
Ford Motor Co. (1991)		
Ford Taurus SHO	$1,000	4/10
Crown Victoria	$1,000	4/10
Other cars	$100-700, based on sales	4/10
Ford trucks	$100-700, based on sales	4/10
Mercury Topaz, Cougar, Sable	$100-750, based on sales	4/10
All Lincoln	0-$1,000, based on sales	4/10
General Motors (1990-91)		
Corvette	$1,000-3,000, quota	4/7
Chevrolet C1500	$500	4/7
Pontiac 1990*		
6000, Trans Sport	$400	4/7
Grand Prix, Bonneville	$1,000	4/7
*Rebate increased by $1,000 if dealer gives up rebates on 1991 models		
Pontiac 1991		
Sunbird, Trans Sport	$400	4/7
Acura (1990-91)		
Integra	$300	4/2
Honda (1990-91)		
Accord	$300	3/31
Hyundai		
1990 models	$1,000-2,000	4/3
1991 Sonata	$100-500, quota	4/3
Isuzu (1990-91)		
Trooper, Pickup	$600-1,700, quota	3/31
Nissan (1990)		
Pathfinder	$1,500	4/2
Nissan (1990-91)		
Stanza	0-$1,500, quota	4/2
Pickups	$1,200	4/2
Peugeot (1990)	$2,000	None
Subaru		
XT (1990-91)	$2,000	5/2
Legacy (1991)*	$500-1,700	5/2
Loyale (1990)	$800-1,500	5/2
*$1,000 extra on 1990 Legacys		
Suzuki (1990-91)		
Swift	$400-1,000	4/3
Sidekick	$1,000-2,000	4/3
Toyota (1989-91)		
Corolla and Camry	$200-1,000, quota	4/3
Celica	$200-1,500, quota	4/3
Trucks	$200-1,000, quota	4/3
Volkswagen (1990)		
Cars	$500-1,500	None

Ford extends rebates, adds '91 Lincolns

By Francis J. Gawronski
AUTOMOTIVE NEWS STAFF REPORTER

Ford Motor Co. has extended its incentive program through April 10 with continued emphasis on dealer rebates and the inclusion of 1991 Lincolns for the first time.

Under the new program, dealers will receive nothing for the first 1991 Lincoln sold, $750 for the second unit and $1,000 for the third unit and above. A $1,000 rebate will be added to those payments for 1990 Lincoln models sold — starting with the first unit. The previous program paid dealers $2,000 for each 1990 Lincoln sold, and offered a consumer rebate of $1,500 on 1990 Lincolns.

Ford is paying customer rebates of $500 on the 1991 Ford Escort, Ford Festiva and Mercury Tracer and $1,000 on the 1991 Mercury Grand Marquis and Ford Ranger. Also offered on those models is alternative financing of 7.9 percent for 48 months or less.

Customer rebates of $700 on the 1990 Festiva and $1,500 on the 1990 Ranger also were extended to April 10

Ford also is offering buyers a choice of cash or low-interest financing on selected 1991 models in certain states.

"We will continue to test customer cash incentives or alternative financing on selected models in various regions of the country to ease the transition to this significantly different way of marketing our products," said Robert L. Rewey, vice president of Ford North American Sales Operations.

Since Dec. 12, Ford has emphasized dealer rebates more than consumer programs, a move that was not followed by General Motors and Chrysler Corp. GM's current incentive programs expire April 7; Chrysler's run through March 31.

Elsewhere, Mazda Motor of America Inc. announced consumer rebates of $1,500 on 1991 MX-6 and 626 models and $500 on all 1991 trucks. The program runs through April 3.

ACCORD

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Marysville."

The Ohio cutback — part of a 25,000-unit global reduction by Honda Motor Co. Ltd. in Japan — comes as Honda is increasing its U.S. Accord production and also increasing production at a new Civic factory in East Liberty, Ohio.

Antonius said Honda will probably also need to begin storing Civics at the Marion depot, about 35 miles from the East Liberty plant. A second shift is presently being added at that factory.

At the same time, Isuzu Transport Inc., a branch of Subaru-Isuzu Automotive Inc., is storing as many as 5,000 Isuzu trucks and sport-utilities in two locations in Indiana — one in Indianapolis and another in Remington, about 45 miles north of the Subaru-Isuzu plant in Lafayette.

Another subsidiary, Subaru Forwarding Inc., is storing 2,000 to 3,000 Subaru Legacys at a site near the factory in Lafayette.

The overflow there is in addition to a filled vehicle storage yard that holds 6,800 cars and trucks.

In a further setback, Isuzu Motors Ltd. in Japan decided last month to cut back its share of production at the plant by 1,000 trucks a month until sales increase. Two months ago, Isuzu officials at the plant told *Automotive News* that they would expand U.S. truck output.

The plant currently produces at a rate of 10,000 Legacys and trucks a month, with plans to reach 14,000 a month later this year. But as a result of the new Isuzu decision, the plant will scale back to 9,000 a month for the time being.

Unsold cars also threatened to become an issue at Toyota Motor Manufacturing U.S.A. Inc. in Georgetown, Ky., until the last week or two. That plant's 5,000-capacity marshaling yard was nearly full for the first time in the plant's three-year history. Plant officials were readying adjacent property to park the overflow of new cars, a plant spokesman said.

But the backup has since eased and the yard is now only half full, he said. There has been no off-site storage of cars, he said.

Sales of Toyota's domestic cars dropped 50 percent during the first 10 days of February and 31 percent in the second 10 days.

As a result, Toyota Motor Corp. said it would cut the number of vehicles it exports to the United States by 10,000 in March and April. James Olson, a spokesman for Toyota Motor Sales U.S.A. Inc., said all 10,000 units will be Camrys and Corollas — the two models Toyota builds in North America.

> "Cutting back our domestic production is the cord of last resort for Toyota to pull."
>
> **James Olson**
> Toyota Motor Sales U.S.A. Inc. spokesman

Olson said it is Toyota's policy to trim U.S.-bound exports rather than reduce its U.S. output.

"Cutting back our domestic production is the cord of last resort for Toyota to pull," Olson said. "It would ripple too much through the domestic supplier community."

He also pointed out that Toyota's total North American plant investment now is $3.5 billion and said reducing production would hamper the effort to make that investment profitable.

"Besides that, we have enough flexibility that we don't have to cut production. We're dual-sourcing our cars, and we can divert one source to other markets without interfering with U.S. output," Olson said.

Japanese carmakers typically face a six-week factory-to-dealer pipeline in exporting cars to the United States. Thus, a late-February decision to reduce exports is not likely to be felt in this country before mid-April.

Other transplant factory operations have so far been been less affected by the steep drops in auto sales — due in part to having Big 3 partners or customers.

Diamond-Star Motors Corp., a 50-50 joint venture between Chrysler Corp. and Mitsubishi Motors Corp., said that its production and vehicle inventory is normal because the two parent companies are responsible for removing cars as soon as they are assembled.

That situation is the same at New United Motor Manufacturing Inc., a joint venture between Toyota and General Motors. Neither partner reports a problem in storing unsold vehicles, and a plant spokesman said that production is continuing at normal volume.

Production also remains unchanged at Mazda Motor Manufacturing (USA) Corp. About 2,300 of the 3,500 cars a week that are currently produced by Mazda are Ford Probes, purchased and removed by Ford Motor Co. But Mazda Motor Corp. has still reduced its export plans by 8,000 units so far this year.

Nissan Motor Co. Ltd. also is cutting its U.S.-bound exports from Japan by as many as 5,000 units this month. But officials at Nissan's U.S. operations maintain that sales of its U.S.-made Sentra and pickup truck remain brisk.

So far this year, U.S. Sentra production is 25 percent ahead of last year because of the introduction of a new model.

GM, Chrysler on list of underfunded pensions

General Motors and Chrysler Corp. made the nation's Top 50 list of companies with underfunded pensions, according to the Pension Benefit Guaranty Corp.

The list comes from a survey of corporate annual reports for fiscal years that ended in 1989. Chrysler showed a shortfall of $2.6 billion in 1989 that rose to $3.6 billion at the end of 1990, according to a Chrysler spokesman.

"The listing creates unnecessary fear and our concern is that it doesn't take certain factors into account including the financial strength of each of the companies and the measures companies are taking to reduce underfunded pensions," he said.

Chrysler has a 10-year plan ending in 1998 that will fully fund its pension program. The rise in the projected underfunded benefit is due to improved pension benefits for hourly workers resulting from the labor contract and a decline in the fund assets.

GM had a shortfall of $1 billion in 1989 that a company spokesman said increased in 1990.

He said the agency uses different calculations than GM to determine whether pensions are underfunded, pointing out that GM has multiple pension programs.

The pension program cited by the agency is for hourly workers and is subject to change whenever new contracts are negotiated.

"Our funding policy with all GM pension programs is to contribute annually not less than the minimum required by law, but not more than the maximum amount that can be deducted for tax purposes," he said.

The listing of the pension plans is compiled by the guaranty corporation, a federal agency that guarantees pension benefits in the event a corporation is unable to meet its obligations.

— Charles M. Thomas

Navistar losses rise; $38 million in 1st quarter

CHICAGO — Navistar International's losses continued to mount during the first quarter of its 1991 fiscal year, ended Jan. 31.

Navistar reported a net loss of $38 million during the quarter, up from a loss of $18 million in the year-earlier period. Sales and revenues dropped to $842 million from $886 million a year earlier.

James C. Cotting, Navistar chairman and chief executive officer, said he expects the medium/heavy-truck market to continue to be down, but he believes Navistar's losses will narrow in the second quarter because of a $167 million cost-reduction program in fiscal 1991.

Cotting looks for medium/heavy-truck demand to be off 9 to 19 percent from the 277,385 units retailed in calendar 1990.

RELIEF

FROM PAGE 1

state of the industry. They stressed that a strong auto industry is an important component of a healthy economy.

Elliott Hall, vice president of Washington affairs at Ford, said top Big 3 executives visit the White House about once a year. But last week's visit was of a burning urgency because of the Persian Gulf war and the industry's severe sales slump, Hall said.

"When the war started, consumer confidence fell right off the table. It wasn't just a descending line, it was a precipitous fall and caused a lot of alarm in the industry. Hopefully with the war over, things may change," Hall said.

Policy makers didn't make many promises, Hall said. "They were in a listening mode."

The most important request was for Greenspan to loosen the money supply to create a lower prime rate and consumer lending rates, Hall said.

The visit was arranged by Transportation Secretary Samuel K. Skinner, who grew concerned about the industry's problems during the Detroit auto show in early January.

Skinner promised he would arrange meetings with cabinet members for Stempel, Poling and Iacocca. Skinner has repeatedly said the administration must help domestic makers compete and not overburden them with regulations. He has been the administration's top spokesman in opposition to the CAFE bill sponsored by Sen. Richard Bryan, D-Nev., which calls for a 40 percent increase by 2001.

The chairman also met with Senate Minority Leader Robert Dole, R-Kan., and other senators. They included Sen. Don Nickels, R-Okla., who was thanked for leading the Senate's successful fight last year against the Bryan bill. Also present was Sen. John Danforth, R-Mo., a leading advocate of increasing auto and truck safety regulations.

Cabinet members who heard the Big 3 scenario of dropping sales, rising unemployment and increased competition from Japan included Commerce Secretary Robert Mosbacher, Treasury Secretary Nicholas Brady and Chief of Staff John Sununu.

Sununu has been a major influence on the administration's policies on clean air, CAFE and energy. His repeated softening of policies has been lambasted by environmentalists, who accuse him of catering to business interests and overruling more stringent EPA and energy department recommendations.

"They had an open and frank discussion of all issues, the (Big 3 chairmen) are candid people," said a staff member in one of the Big 3 offices. "Their timing was good; we're faced with regulation after regulation and industry layoffs. We have to jump start the economy and our industry is a part of it."

The visits set off a flurry of rumors among Japanese automaking interests in Washington, firing off speculation that the Big 3 would file a dumping case against Japanese trucks or seek unfair trade reprisals under the 1988 trade bill. None of the Big 3 would comment on the trade issue but confirmed they have talked previously with House Majority Leader Richard Gephart, D-Mo., whose staff is preparing trade legislation.

PRODUCTION

U.S. CAR	Week Ended Mar. 2, 1991	Week Ended Feb. 23, 1991	Feb. Est.	Jan. 1 to Mar. 2, 1991	Jan. 1 to Mar. 3, 1990
Horizon	0	0	0	0	4,578
Sundance	2,400	0	4,733	6,995	10,839
Acclaim	2,500	0	4,971	16,277	11,970
Total Plymouth	**4,900**	**0**	**9,705**	**23,272**	**27,387**
LeBaron A	0	0	0	0	2,602
LeBaron J	0	1,661	1,995	4,351	2,780
N. Yorker C-Class	200	200	636	1,955	2,914
Fifth Avenue	700	676	2,083	5,769	4,105
Imperial	200	199	593	1,668	3,205
Total Chrysler	**1,100**	**2,736**	**5,307**	**13,683**	**15,606**
Omni	0	0	0	0	4,308
Daytona	0	557	673	1,632	1,825
Shadow	2,350	0	4,816	7,336	12,983
Dynasty	3,800	3,835	11,474	27,202	17,713
Spirit	2,250	0	4,720	14,955	13,816
Total Dodge	**8,400**	**4,392**	**21,683**	**51,125**	**50,645**
CHRYSLER CORP.	**14,400**	**7,128**	**36,694**	**88,080**	**93,638**
Escort	0	5,476	10,755	23,653	20,425
Mustang	0	3,181	3,693	7,933	25,012
Tempo	3,272	3,019	8,969	16,789	19,368
Taurus	4,043	7,207	19,584	43,420	66,214
Thunderbird	0	3,772	4,461	8,560	16,651
Total Ford Div.	**7,315**	**22,655**	**47,462**	**100,355**	**147,680**
Topaz	1,133	1,381	3,360	6,549	5,940
Cougar	0	1,621	2,046	5,779	9,282
Sable	1,216	3,185	7,161	13,534	14,650
Total Mercury	**2,349**	**6,187**	**12,568**	**25,862**	**29,872**
Continental	1,187	1,186	4,724	10,022	9,280
Mark VII	202	199	820	1,747	4,611
Town Car	2,771	2,775	11,083	23,565	27,930
Total Lincoln	**4,160**	**4,160**	**16,627**	**35,334**	**41,821**
Total L-M Div.	**6,509**	**10,347**	**29,195**	**61,196**	**71,693**
FORD MOTOR CO.	**13,824**	**33,002**	**76,656**	**161,551**	**219,373**
Skylark/Somerset	2,465	2,534	9,943	21,061	11,928
Century	0	2,636	7,385	10,601	11,032
Riviera	374	345	1,378	2,213	3,488
Electra/Park Ave.	2,314	2,388	10,430	20,103	12,317
LeSabre (fwd)	4,019	3,915	15,893	33,409	24,050
Roadmaster Wagon**	90	90	250	459	1,008
Reatta	83	68	208	257	1,321
Total Buick	**9,345**	**11,976**	**45,486**	**88,103**	**65,144**
Eldorado	492	452	1,805	2,835	2,945
Seville	881	831	3,275	5,340	4,117
Brougham (rwd)	413	0	779	2,895	5,965
DeVille (fwd)	3,200	3,024	12,043	25,592	23,008
Allante	64	64	256	538	527
Total Cadillac	**5,050**	**4,371**	**18,159**	**37,200**	**36,562**
Cavalier	5,295	5,663	22,335	46,632	42,561
Camaro	2,020	0	1,616	6,049	3,679
Corsica/Beretta	4,000	4,042	12,870	33,384	45,514
Caprice	2,732	1,212	7,889	20,439	18,261
Corvette	485	483	1,922	4,033	3,360
Total Chevrolet	**14,532**	**11,400**	**46,631**	**110,537**	**113,375**
Calais	2,395	2,212	8,291	16,328	12,437
Cutlass Ciera	0	1,331	4,392	7,725	12,861
Cutlass Supreme	0	2,164	6,939	15,787	12,702
Toronado	216	197	793	1,266	3,791
88 (fwd)	1,808	1,818	7,564	15,689	12,542
88 (rwd)	0	0	0	0	686
98	2,000	1,993	7,787	15,898	8,631
Total Oldsmobile	**6,419**	**9,715**	**35,765**	**72,693**	**63,650**
Sunbird	2,495	2,270	10,076	20,583	17,122
Grand Am	4,800	4,914	19,177	32,631	23,640
Firebird	578	0	462	1,581	1,236
Grand Prix	3,050	2,840	5,914	14,713	12,688
Pontiac 6000	0	1,050	3,086	5,333	9,059
Bonneville	2,226	2,104	6,895	11,365	13,984
Total Pontiac	**13,149**	**13,178**	**45,611**	**86,206**	**77,729**
Total Saturn	**910**	**910**	**3,639**	**6,865**	**0**
GENERAL MOTORS	**49,405**	**51,550**	**195,291**	**401,604**	**356,460**
DIAMOND-STAR	**3,124**	**3,207**	**12,644**	**26,793**	**23,492**
Civic	1,751	1,935	6,925	14,536	22,737
Accord	5,960	7,100	26,183	58,266	53,012
HONDA	**7,711**	**9,035**	**33,108**	**72,802**	**75,749**
MAZDA†	**3,876**	**3,300**	**13,609**	**26,160**	**29,818**
NISSAN	**2,854**	**2,925**	**11,516**	**25,591**	**20,605**
Corolla	2,100	2,111	8,412	17,811	18,056
Geo Prizm/Nova	2,100	2,100	8,405	17,927	16,831
NUMMI	**4,200**	**4,211**	**16,817**	**35,738**	**34,887**
SUBARU-ISUZU	**1,200**	**1,145**	**4,721**	**9,995**	**5,040**
TOYOTA	**4,400**	**4,306**	**17,344**	**38,031**	**38,181**
TOTAL BIG 3	**77,629**	**91,580**	**308,641**	**651,235**	**669,471**
TOTAL TRANSPLANT	**27,365**	**28,129**	**109,759**	**235,110**	**227,772**
TOTAL CARS, U.S.	**104,994**	**119,809**	**418,400**	**886,345**	**897,243**
TOTAL CARS, CANADA	**23,536**	**13,878**	**65,440**	**151,216**	**155,602**
U.S., CANADA CARS	**128,530**	**133,687**	**483,840**	**1,037,561**	**1,052,845**
U.S., CANADA CARS AND TRUCKS	**202,195**	**209,736**	**748,447**	**1,610,490**	**1,798,637**

CANADIAN CAR	Week Ended Mar. 2, 1991	Week Ended Feb. 23, 1991	Feb. Est.	Jan. 1 to Mar. 2, 1991	Jan. 1 to Mar. 3, 1990
Monaco	0	0	329	329	1,894
Premier	0	0	954	954	401
CHRYSLER CORP.	**0**	**0**	**1,283**	**1,283**	**2,295**
Tempo	3,598	2,942	12,311	18,404	21,314
Topaz	903	729	3,084	4,903	5,646
Crown Victoria	3,109	3,392	11,328	16,420	17,789
Grand Marquis	1,241	194	1,398	1,646	16,641
FORD MOTOR CO.	**8,851**	**7,257**	**28,122**	**41,373**	**61,390**
Celebrity	0	0	0	0	3,378
Cutlass Ciera	0	0	359	7,877	17,281
Lumina	4,795	0	4,772	23,868	32,334
Regal	3,025	0	3,087	16,160	4,816
GENERAL MOTORS	**7,820**	**0**	**8,217**	**47,905**	**57,809**
CAMI*	**2,500**	**2,500**	**10,088**	**22,095**	**0**
HONDA	**2,150**	**1,976**	**8,504**	**18,274**	**20,119**
HYUNDAI	**735**	**668**	**3,217**	**7,268**	**2,810**
TOYOTA	**1,300**	**1,333**	**5,324**	**11,525**	**9,633**
VOLVO	**180**	**144**	**684**	**1,493**	**1,546**
TOTAL CARS, CANADA	**23,536**	**13,878**	**65,440**	**151,216**	**155,602**

U.S. TRUCK

Caravan	1,950	1,794	7,884	17,469	21,111
Dakota	0	0	3,772	6,881	9,338
Caravan C/V	200	92	454	766	1,309
Ram pickups	0	0	3,766	6,893	13,025
Total Dodge	**2,150**	**1,886**	**15,876**	**32,009**	**44,783**
Cherokee	3,950	3,952	7,901	14,589	26,604
Comanche	250	265	528	1,072	1,202
Grand Wagoneer	0	0	0	0	585
Wagoneer/Briarwood	150	163	307	515	477
Total Jeep	**4,350**	**4,380**	**8,736**	**16,176**	**28,868**
Voyager	1,550	1,525	5,948	13,413	19,161
Town & Country	50	67	243	503	648
Total C-P Div.	**1,600**	**1,592**	**6,190**	**13,916**	**19,809**
CHRYSLER CORP.	**8,100**	**7,858**	**30,803**	**62,101**	**93,460**
Aerostar	0	3,930	7,920	17,537	27,323
Bronco	0	609	760	1,935	9,060
Bronco II/Explorer	5,841	5,353	21,886	44,249	15,051
Navajo	414	400	1,549	3,295	0
Econoline	1,896	0	5,540	13,718	27,529
Mediums/Heavies	0	909	2,195	5,810	17,724
Light trucks	0	9,020	13,311	32,030	70,486
Ranger	3,543	6,041	15,816	36,429	45,997
Total Ford Div.	**11,694**	**26,262**	**68,977**	**155,003**	**213,170**
FORD MOTOR CO.	**11,694**	**26,262**	**68,977**	**155,003**	**213,170**
Astro	2,345	2,383	7,044	13,391	13,684
Blazer	192	187	809	1,351	2,459
Lumina APV	915	0	1,026	4,769	15,844
Mediums/Heavies	152	50	604	1,620	2,656
P-Model	450	449	1,665	2,386	3,973
Pickups	6,066	6,172	15,018	32,922	48,725
S-10	5,639	5,672	15,790	39,119	39,099
S-10 Blazer	1,370	1,326	3,772	7,476	14,760
Sportsvan/Van	995	968	3,324	4,952	6,652
Suburban	560	540	2,066	3,903	9,070
Total Chevrolet	**18,684**	**17,747**	**51,118**	**111,809**	**159,822**
Jimmy	69	65	258	466	892
Mediums/Heavies	497	545	1,782	3,331	3,152
P-Model	55	65	251	471	426
Pickups	2,092	1,965	5,580	11,841	12,283
S-15/Sonoma	1,575	1,569	3,898	9,664	10,255
S-15 Jimmy	650	648	1,702	3,747	5,396
Safari	1,015	738	2,881	5,587	4,781
Suburban	523	471	2,238	3,446	4,168
Vandura/Rally Vans	365	389	1,711	2,315	2,882
Total GMC	**6,841**	**6,455**	**20,301**	**40,868**	**44,232**
Silhouette	688	0	646	1,798	5,112
Bravada	650	677	1,945	4,079	0
Total Oldsmobile	**1,338**	**677**	**2,592**	**5,877**	**5,112**
Pontiac Trans Sport	**625**	**0**	**651**	**2,683**	**10,262**
GENERAL MOTORS	**27,488**	**24,879**	**74,662**	**161,317**	**216,528**
NAVISTAR*	**1,500**	**1,550**	**6,297**	**12,526**	**373**
NISSAN	**2,738**	**2,769**	**11,011**	**24,449**	**26,492**
SUBARU-ISUZU	**1,139**	**1,190**	**4,617**	**9,793**	**5,040**
AM GENERAL	**400**	**400**	**1,600**	**3,650**	**4,050**
MISCELLANEOUS	**2,650**	**2,650**	**10,600**	**24,200**	**27,000**
TOTAL TRUCKS, U.S.	**55,709**	**67,558**	**208,566**	**453,039**	**599,113**

CANADIAN TRUCK

Caravan	2,910	0	8,762	21,916	29,083
Caravan C/V	120	0	283	686	1,872
Ram Wagon	715	725	2,097	2,659	3,463
Ram Van	1,205	1,235	3,705	4,909	8,317
Total Dodge	**4,950**	**1,960**	**14,847**	**30,170**	**42,735**
Voyager	2,090	0	6,346	16,287	24,160
Total Plymouth	**2,090**	**0**	**6,346**	**16,287**	**24,160**
Wrangler	1,500	0	3,137	7,238	4,534
Total Jeep	**1,500**	**0**	**3,137**	**7,238**	**4,534**
CHRYSLER CORP.	**8,540**	**1,960**	**24,330**	**53,695**	**71,429**
FORD MTR. (lt. trks.)	**2,976**	**0**	**5,935**	**13,411**	**23,013**
Light trucks	3,282	3,353	12,694	26,803	30,332
Vans	627	589	2,274	3,495	5,142
Total Chevrolet	**3,909**	**3,942**	**14,969**	**30,298**	**35,474**
Light trucks	968	964	4,169	9,345	12,730
Vans	348	407	1,687	2,365	2,267
Total GMC	**1,316**	**1,371**	**5,856**	**11,710**	**14,997**
GENERAL MOTORS	**5,225**	**5,313**	**20,825**	**42,008**	**50,471**
CAMI*	**1,050**	**1,050**	**4,286**	**9,447**	**0**
NAVISTAR	**165**	**168**	**664**	**1,329**	**1,766**
TOTAL TRKS., CANADA	**17,956**	**8,491**	**56,041**	**119,890**	**146,679**
U.S., CANADA TRKS.	**73,665**	**76,049**	**264,608**	**572,929**	**745,792**

Monthly estimates may contain error of one or two units due to rounding.
*Estimate †Total includes MX-6, 626, and Ford Probe
**1990 totals reflect the LeSabre (rwd).
Miscellaneous includes estimates for Mack, Volvo-White, Kenworth, Peterbilt, Freightliner, Mercedes-Benz.

Year's build trails 1990

By Anne E. Wright
AUTOMOTIVE NEWS CHIEF STATISTICIAN

U.S. auto production has fallen behind the 1990 total for the first time this year as automakers continue to battle high inventories and recession-plagued sales.

Year-to-date U.S. auto production through March 2 was 886,345, down 1.21 percent from 1990.

U.S. carmakers scheduled 104,994 units last week, 12.37 percent below the preceding week and 19.94 percent below the corresponding week of 1990.

Truckmakers planned to build 55,709 units last week, 17.54 percent below the prior week and 33.50 percent below the comparable week last year.

So far this year, truck production is 24.38 percent behind 1990.

Idle this week because of slow sales are nine U.S. car plants, two truck facilities and one truck line. Ford Motor Co. continues to run a single shift at the Lorain, Ohio, truck plant.

General Motors is scheduled to idle Line No. 2 of the Flint, Mich., truck facility this week.

The company scheduled build-out at the Flint, Mich., (Buick City) plant to begin March 1. Production of the 1992 Buick LeSabre and Oldsmobile 88 is slated to begin in April.

CANADA: Total vehicle production in Canada was estimated at 41,492 last week, 85.49 percent above the prior week and 12.83 percent below the year-ago week.

SCHEDULED PLANT CLOSINGS

Plant	Weeks down	Units lost/ week
FORD		
Dearborn, Mich.	**3/4**	
Ford Mustang		3,700
Edison, N.J.	**3/4**	**2,800**
Ford F Series		
Ford Ranger		
Michigan Truck	**3/4**	**3,000**
Ford Bronco		
Ford F-Series		
Oakville, Ontario	**3/4**	
Ford Tempo		3,370
Mercury Topaz		850
Ontario Truck	**3/4**	
Ford F Series		2,920
GENERAL MOTORS		
Flint, Mich. (Buick City)		
Buick LeSabre (fwd)		3,900
Olds. 88 Royal		1,150
Kansas City, Kansas	**3/4**	
Pontiac Grand Prix		3,000
Linden, N.J.	**3/4**	
Chev. Corsica/Beretta		2,060
Oklahoma City	**3/4**	
Pontiac 6000		1,100
Buick Century		2,200
Olds. Cutlass Ciera		1,700
Wilmington, Del.	**3/4**	
Chev. Corsica/Beretta		4,000
CHRYSLER		
Belvidere, Ill.	**3/4, 3/11, 3/18**	
Chrysler New Yorker		245
Chrysler Imperial		220
Chrysler Fifth Ave.		775
Dodge Dynasty		3,520
Bramalea, Ontario	**3/4**	
Eagle Premier		875
Dodge Monaco		400
St. Louis (No. 1)	**3/4**	
Chrysler LeBaron J		1,500
Dodge Daytona		660
Toledo, Ohio	**3/4, 3/11**	
Jeep Cherokee		3,350
Jeep Comanche		400
Jeep Gr. Wagoneer		330
Jeep Briarwood		100
Total U.S. Car		**29,730**
Total U.S. Truck		**9,980**
Total Canada Car		**5,495**
Total Canada Truck		**2,920**
Total Units Lost Week of 3/4		**48,125**

Source: Automotive News Data Center

NOTE

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Automotive News

March 11, 1991

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PETER FOX

A surprise roll-out in Geneva

Rolls-Royce Motor Cars Ltd. landed the unaccustomed role of show-stealer at the Geneva auto show last week. The luxury carmaker took the wraps off the new Bentley Continental R, a $250,000 coupe that Rolls calls a "sporting supercar." The 145-mph car was developed in secrecy and unveiled to the surprise of show-goers. It's the first Bentley in 40 years that has not shared a body style with a Rolls-Royce counterpart. Powered by a 6.7-liter turbocharged V-8 mated to a four-speed automatic, the Continental R is electronically limited to 145 mph. Other news and photos from Geneva on Page 6.

GM develops group to build and market electric car line

By Phil Frame
AUTOMOTIVE NEWS STAFF REPORTER

DETROIT — General Motors is building a strategic business unit — which now includes more than 200 people — to market a line of electric vehicles.

The formation of GM Electric Vehicles — a stand-alone group that includes engineering, product planning, market development, marketing, sales and service personnel — has never been announced by the company. No timetable for the start of production of the electric car has been announced, but there are reports that it will be sold as a 1994 model with production beginning in 1993.

To avoid tipping its hand to competitors, GM is highly selective on the information it releases about its electric-vehicle program. Employees at GM Electric Vehicles — known internally as GMEV — have been told not to discuss their work with outsiders. GM will acknowledge the group's existence only if asked.

The manager of GM Electric Vehicles is Kenneth Baker, who was director of advanced vehicle engineering at the Chevrolet-Pontiac-Canada Group and head of the GM Service Technology Group before being appointed to his current post in June 1990, said GM spokeswoman Toni Simonetti. GM Electric Vehicles is part of the advanced engineering staff under the direction of GM Vice President Donald Runkle and Vice Chairman Robert Schultz.

see ELECTRIC, page 47

Dealer total dips 433 in '90

Loss is highest since 1982 recession; Big 3 hit hardest

By John K. Teahen Jr.
SENIOR EDITOR

Sluggish sales, the recession and the threat of war caused a 1990 decline of 433 in the number of new-car dealerships in the United States. The drop was substantially less than some early estimates had anticipated.

The annual *Automotive News* census found 24,390 outlets in operation on Jan. 1, 1991, down 1.74 percent from 24,823 at the beginning of 1990. The latest total is made up of 18,984 Big 3 stores and 5,406 that handle only imports. A year earlier, there were 19,382 Big 3 and 5,441 import-only points.

The Big 3 bore almost all of the downturn. General Motors, Ford Motor Co. and Chrysler Corp. had a combined loss of 398 outlets. The import-only stores dipped by 35.

Last year's decline was the worst since 1982 when 974 dealerships closed their doors. In the eight years since then,

see CENSUS, page 22

CAR DEALERSHIPS IN U.S.

	Jan. 1, 1991	Jan. 1, 1990*
Chrysler Corp.	5,175	5,298
Ford Motor Co.	5,296	5,389
General Motors	9,048	9,250
Totals	19,519	19,937
Minus intercorporate duals	535	555
Net Big 3	**18,984**	**19,382**
Import exclusives	4,276	4,356
Import-only duals	1,130	1,085
Total new-car dealerships	**24,390**	**24,823**

*Revised

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Bad days linger: Feb. sales drop; output slashed

By Jim Henry
AUTOMOTIVE NEWS STAFF REPORTER

The U.S. auto industry is in relatively better shape than it was a month ago, but the tough times aren't over yet.

Domestic and import inventories, Page 45

New-vehicle sales showed gradual improvement through February, and the stockpile of unsold domestic and imported cars receded.

Inventory control measures remain stringent as automakers this week idled 21 North American car and truck assembly plants. They also whacked the combined second quarter U.S. car production schedule to 1.5 million units, which would make it the

see SALES, page 46

TOP 10 SELLERS, FEBRUARY 1991

	Sales
1. Chevrolet C/K pickup	29,589
2. Ford F-series pickup	28,719
3. Ford Taurus	26,469
4. Honda Accord	24,743
5. Chevrolet Cavalier	23,992
6. Ford Escort	23,371
7. Toyota Camry	18,141
8. Ford Ranger	18,119
9. Chevrolet Corsica/Beretta	17,091
10. Ford Tempo	16,922

Source: Automotive News Data Center

Women remain far away from auto industry's top jobs

By Liz Pinto
AUTOMOTIVE NEWS STAFF REPORTER

More women are working in the traditional male bastion of the auto industry, but few make it to upper management. And those who do make it believe that discrimination and institutional bias still block the road to the top.

Women hold fewer than 2 percent of top management jobs. And most are outside the main flow of carmaking, in such ancillary disciplines as advertising, marketing and public relations.

No woman heads a Big 3 car division; no woman is even close to such a job. It seems unlikely that Chevrolet or Dodge or Lincoln-Mercury — or any other car division — will have a woman at the top in the 1990s because women aren't in the pipeline. They don't hold the types of jobs that prepare an executive for such a position.

The Big 3 won't say much about the high-level jobs that women hold. None of the companies would disclose the number of women on the bonus roll, which is the zenith of accomplishment in the industry. The only big jobs they mention are the obvious ones — three vice presidents and two outside directors at General Motors; one vice president at Ford Motor Co.; and two outside directors at Chrysler Corp.

And things aren't better at the imports or transplants.

Women seem to be making progress in the auto industry. But it's a long, slow process.

Toni Harrington, Washington manager of government and industry relations for Honda North America Inc., says the system is prohibitive.

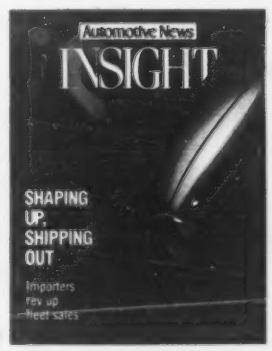
Harrington, 43, has worked for Honda for 12 years and has been in her current position since 1988. But because she follows procedure and uses "T. Harrington" on all internal correspondence, it was a long time before Honda officials in Japan learned that they had a woman in Washington.

And because there are so few women in industry in Japan, the revelation caused a stir.

Although Harrington has succeeded in the U.S. auto industry, she believes there are still barriers.

"I think there is an institutional bias in the industry because they are not used to dealing with women," Harrington says. "There has been discrimination."

see WOMEN, page 48



Imports rev up

A look at the import business, including a statistical rundown on dealerships that sell foreign makes, is featured in *Automotive News Insight*, which follows Page 26.

GM adds ABS for '92

Low-cost anti-lock brakes will be standard throughout GM's small-car lines this fall. Story on Page 3.

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Honda raises Accord incentive, adds bounty for orders

By Kristine Stiven Breese
AUTOMOTIVE NEWS STAFF REPORTER

LOS ANGELES — American Honda Motor Co. Inc. has increased its dealer incentive for 1990 and 1991 Accords from $300 to $500 for each car sold and is giving dealers another $400 for each U.S.- and Japanese-built Accord ordered by April 2.

Consumer, dealer incentives, Page 48

Together, the programs represent the most aggressive incentivizing to date by Honda, which has 2,000 U.S.-built Accords in storage at a former U.S. Army depot in Marion, Ohio. Honda has trimmed its U.S. first-quarter production by 5,000 units.

The company has used only limited dealer incentives and has shunned retail incentives.

The $500 sales incentive runs through March 31, the same date the $300 rebate was to have expired. Accord wagons and Special Edition models are excluded. The purchase-order incentive runs until April 2. Both of the new programs began March 5. The original $300 rebate began Jan. 8.

Honda also insisted that the second program, which pays dealers $400 per order, is not an incentive but an "advertising allowance."

Honda's first incentive began April 1, 1989, with a stepped program on all models that enabled dealers to earn up to $300 on each unit sold if sales objectives were met. Since then, Honda has had "less than half a dozen" dealer incentive programs, according to spokesman Bob Butorac.

Previous incentives have been $500 or less, except for one in which dealers earned up to $600 for meeting sales objectives.

At least one dealer believes the incentives prove that Honda "is part of the real world now." The dealer, who asked to remain anonymous, said that he doesn't mind Honda becoming aggressive, but he hates Honda having "to get into the same game as everybody else."

The dealer also said he's bothered by the order-incentive program.

"I think that incentivizing dealers to order inventory is not a very gracious way to show appreciation to dealers who've carried a big inventory throughout the fall and winter," he said.

Subaru of America Inc. and BMW of North America Inc. announced consumer incentive programs on selected 1991 models.

Subaru is paying consumers a rebate of $500 on Loyale front-wheel-drive sedans with five-speed and automatic transmissions and four-wheel-drive wagons with five-speed or automatic transmissions. The program ends May 2.

Under the BMW program, which runs through April 30, consumers may choose finance rates of 1.9 percent for 12 months, 4.9 percent for 24 months, 6.9 percent for 36 months or 8.9 percent for 48 months when buying or leasing 318i, 318is, 735i, 735iL and 750iL models. Also, the required down payment on 318i and 318is models has been reduced to 10 percent.

Automotive News Staff Reporter Frank Gawronski in Detroit contributed to this report.

Chrysler ad hits safety

Stunt drivers crash cars to tout air bags

By Arlena Sawyers
AUTOMOTIVE NEWS STAFF REPORTER

Chrysler Corp. has created a commercial showing two stunt drivers crashing their air-bag-equipped Chrysler and Dodge cars head-on and emerging from the vehicles unscathed.

The commercial, which broke on national network television March 9, is part of the manufacturer's corporate campaign aimed at making Chrysler the recognized leader in vehicle safety, said John B. Damoose, vice president of marketing.

"No one has attempted this before, and no one has experienced it except in an actual accident," Damoose said.

The 30-second spot shows a 1991 Chrysler New Yorker Fifth Avenue sedan and a 1991 Dodge Daytona coupe moving toward one another. The announcer says: "Ford, GM and Honda won't have air bags in all their cars until 1994. By that time, approximately 60,000 air bags will have deployed in Chrysler-built vehicles."

Then the cars slam together and the air bags deploy. The two drivers emerge from the cars, apparently unhurt. The ad ends with the "Advantage: Chrysler" tagline.

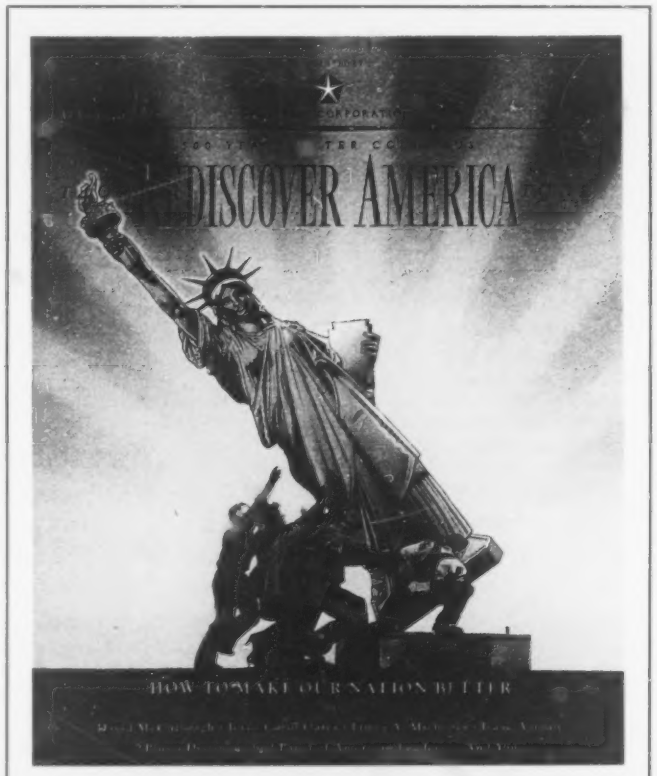
At the moment of impact, one car was traveling 17 mph, and the other was traveling 16 mph, Chrysler said. Engineers estimated the force at impact on the chests of the belted drivers at 25 times the force of gravity. The cars were purchased from a dealership and were not modified, Chrysler said.

Also last week, Chrysler disclosed more details about its "Rediscover America" campaign, a two-year, multimillion-dollar deal with Time Warner Inc.

Under the agreement, Chrysler will use all the media company's properties to market Chrysler products, with a special emphasis on magazines.

Starting with the March 18 issues of *Time* and *People*, Chrysler will launch a "Rediscover America" 16-page advertorial insert that will focus on issues important to Americans. Among the topics to be discussed are education and taxes.

The insert will include a ballot with questions and room for comments. Results from returned ballots will appear in three subsequent inserts. A summary report in the form of a 16-page insert is scheduled for the summer of 1992.



"Rediscover America" is a 16-page advertorial insert sponsored by Chrysler that will apppear in upcoming issues of Time Warner Inc. magazines as part of a two-year, multimillion-dollar advertising deal.

Sales slump continues in Japan

By Mary Ann Maskery
AUTOMOTIVE NEWS STAFF REPORTER

TOKYO — Japanese auto sales fell 4.5 percent last month — the fourth consecutive month of decline — and were off sharply in the luxury-import sector and the key subcompact sector, the Japan Automobile Dealers Association reported last week.

Overall sales fell to 474,160 units, the group reported. But sales of small cars between 660 cc and 2 liters — the largest single segment of the Japanese market — fell 12.1 percent, to 292,459. The small-car segment is usually the first to suffer in a shrinking market and has now declined for five straight months.

Toyota Motor Corp. sales fell 4.8 percent, to 200,399 units, while Nissan Motor Co. reported a 6.9 percent decline, to 116,614.

Honda Motor Co. reported a 13 percent drop, to 33,254.

Mazda Motor Corp. and Mitsubishi Motors Corp. continued to show growth. Mazda sales rose two-tenths of 1 percent, to 37,270, while Mitsubishi reported a 10.4 percent jump, to 35,366 units. Even Isuzu Motors Ltd., which has forecast a loss for this year, showed a 5.3 percent gain in February sales, to 14,714 units.

Sales of minicars (under 660 cc), which are counted separately, continued an upward trend, rising 35.3 percent, to 150,947. Cars over 2 liters also showed remarkable growth, climbing 40.7 percent, to 43,865 units.

Normally, an increase in large-car sales means a boost in the import segment. But import sales have not corresponded to large-car sales for several months. In February, imports declined again. They were down 15.4 percent, to 14,895.

German makes, which dominate the segment, were down 23.2 percent, to 8,944.

Some analysts have speculated that the German makes may be losing some of their snob appeal here. But a spokesman for the Japan Automobile Importers Association attributed the decline to higher interest rates for car loans and double increases in prices of German cars during the last year.

Among the U.S. Big 3, Ford Motor Co. sales slid 51.2 percent, to 246 units, and Chrysler Corp. sales were off 4.6 percent, to 104.

General Motors reported a 26.5 percent gain, to 726 units.

GM shuffles, adds vice presidents

By Phil Frame
AUTOMOTIVE NEWS STAFF REPORTER

Lewis B. Campbell has been appointed general manager of GMC Truck Division, where he will gain the sales and marketing experience he hasn't had in his 23 years at General Motors.

Campbell, 44, a GM vice president since 1988, succeeds John D. Rock, who was named vice president in charge of GM's customer sales and service staff.

Campbell

Rock, 55, replaces C.N. "Bud" Moore, 62, who will retire April 1.

Campbell has been manager of the Buick-Oldsmobile-Cadillac Group's Flint Automotive Division since 1988.

His experience at GM is entirely on the manufacturing side — at the former Inland Division, the GM manufacturing staff, the former Rochester Products Division, the Chevrolet-Pontiac-Canada Group, and finally B-O-C.

At B-O-C, Campbell has been responsible for four assembly plants.

Campbell's appointment means that GMC Truck will have a general manager who also is a corporate vice president for the first time since Rock took over direction of GMC's marketing and sales in 1982. At that time, it was called GMC Truck Operations. GMC Truck Division was created in 1987.

Replacing Campbell at Flint Automotive Division is Donald E. Hackworth, a GM vice president and manager of B-O-C's Lansing Automotive Division. Hackworth, 54, has been responsible for six assembly plants.

Hackworth is replaced at Lansing by Thomas J. Davis, 44, who also was elected a corporate vice president. Davis has been chief engineer at Lansing Automotive Division since 1986.

Moore joined GM in 1951 at Chevrolet and has held his current position since 1986. Rock started at GM in 1960 at Buick. Hackworth joined the company in 1962 at Delco Moraine Division, now Delco Moraine NDH.

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Correction

A March 4 story should have said that Fred Miller, who had been elected secretary-treasurer of the American International Automobile Dealers Association, has resigned to become chairman of the Americans for Free International Trade Political Action Committee. The AIADA position has been filled by Lee S. Maas, a BMW-Audi-Porsche-Ferrari dealer in Dallas.

Service index shows increase of 2.4% in Jan.

By Francis J. Gawronski
AUTOMOTIVE NEWS STAFF REPORTER

Service and parts business in new-car dealerships across the country opened 1991 on the positive side, according to the Automotive News Service Index.

With all five indicators used in the Service Index posting gains for the first time since October, shop business in January amounted to 102.4 percent of the volume for the same month a year ago. Business recorded in December was 95.4 percent of the year-ago volume.

Many dealers who reported a rise in business in January attributed the gain to aggressive advertising and pricing, while those on the downside blamed it on the recession.

The leading indicator in January was repair orders written, which rose 5.8 percent over the year-ago volume. It was followed by shop parts sales (customer-paid and warranty), up 5.7 percent.

Total labor sales, both customer-paid and warranty, showed an increase of 5.6 percent, while gross profit on all labor, parts and accessories — the most important indicator to dealers — was up 2.7 percent. Sales of all parts and accessories climbed 0.8 percent over the year-ago figure.

Figures used in the Service Index are compiled from monthly reports on service and parts business from a cross-section of the nation's new-car dealers.

SERVICE INDEX
102.4*

	Jan. '91 vs Jan. '90
Gross Profit on All Labor and P&A Sales	+ 2.7%
Repair Orders Written	+ 5.8%
Total Labor Sales (Customer & Warranty)	+ 5.6%
Shop Parts Sales (Customer & Warranty)	+ 5.7%
Sales of All P&A	+ 0.8%

* Survey by Automotive News shows that dealers service and parts business in January 1991 was 102.4 percent of business in January 1990

War spotlights contributions of vehicle repair profession

HERNDON, Va. — The Persian Gulf war might prove to be a benefit to the vehicle repair profession, according to the National Institute for Automotive Service Excellence.

The institute, a non-profit organization which tests and certifies service technicians, also said it will grant one-year extensions to certified technicians serving in the war who are unable to take recertification tests.

"Media coverage of Operation Desert Storm shows virtually all Americans the key role the repair technician plays," said Ronald Weiner, institute president.

"Every day, mobile launchers, Jeeps, personnel carriers, planes, tanks and other high-tech vehicles and equipment are serviced and repaired in the desert. The success of the war depended greatly on these unsung heroes."

The institute, Weiner said, expects this heightened awareness of the repair technician to translate into an improved image among consumers and to inspire more young people to consider careers in the vehicle-service industry.

According to Weiner, recent ads in metropolitan newspapers show automotive technicians among the most sought after and repair technician positions as one of the few jobs seemingly "impervious to recession."

The extension of the certification date is available to reservists, members of the National Guard called to active duty and career active duty military who have been sent to assignments related to the war, Weiner said.

To obtain certification extensions, Weiner said a brief note explaining the circumstances and, if possible, a copy of the orders which directed the technician to active duty should be sent to the institute's headquarters at 13505 Dulles Technology Drive, Herndon, Va. 22071.

Inventory control of parts aided by analytical system

By Angela King
CRAIN NEWS SERVICE

The national accounts department of General Motors' AC-Delco operation currently is testing an inventory control system designed to help aftermarket auto manufacturers and retailers avoid stocking unwanted parts with a computer system that lets them analyze vehicle populations in regional and local markets.

The system, called TELE-PLAN, was developed by Detroit-based R.L. Polk & Co. and uses data from Polk's National Vehicle Population Profile, a comprehensive census data base that Polk compiles annually, said Robert Borthwick, vice president and manager of R.L. Polk Automotive Replacement Market Services.

Borthwick said the firm is trying to help aftermarket businesses reduce excess inventory and improve their ability to fill customer orders.

James Rygiel, an account executive with the auto-replacement market unit, said automotive manufacturers are constantly changing their makes and models, thus requiring more types of parts.

"The proliferation problem is the main one we're addressing with the system," Borthwick said.

The age mix of cars on the road is constantly changing, which contributes to the proliferation problem, said Marty Butler, president of the Distributors Institute, a Park Ridge, Ill.-based information group of auto parts distribution firms.

While cars that had been on the road three to five years used to be the most likely target for replacement parts, that range has risen to cars that are five to seven years old, Butler said. At the same time, cars are lasting longer at the extreme end of the range — 13 years and more. Aftermarket suppliers must have parts for all of these vehicles on hand, Butler said.

He estimated that while aftermarket companies' inventory investment is increasing 4 to 7 percent a year, sales are increasing only 3 to 4 percent annually.

"Today, it's impossible to stock every part for every car, so it makes sense to stock parts for the vehicle mix in your particular trade area," Rygiel said.

Borthwick would not disclose specific sales figures, but said TELE-PLAN sales have grown 25 to 30 percent a year since the system was introduced in 1987.

The system, which is broken down by national, state, county and zip code levels, helps aftermarket businesses plan future inventory, Borthwick said.

With the system, Polk can merge product catalogs with more than 26,000 vehicle descriptions to help customers analyze the selling potential of parts for new and older vehicles, he explained.

In the past, aftermarket businesses have looked at historical sales to determine their inventory, Borthwick said, but that doesn't help with potential sales.

Libbey-Owens-Ford, a Toledo, Ohio-based manufacturer of automotive glass, has been using TELE-PLAN since 1988, according to Mark Van Saun, senior market-research analyst in the company's automotive-glass replacement division. He said that, for Libbey-Owens-Ford, which "tends to offer as broad a range of car parts as anyone out there, it is extremely valuable in that it tells you down to the county level what numbers of which types of vehicles are registered in that particular area."

TELE-PLAN is offered through the auto replacement market services unit of the statistical services division. Polk provides on-site training, user support and database updates throughout the year.

Eighteen companies use TELE-PLAN, including Sears, Roebuck & Co. Bob Naehring, the buyer for Sears' 800-plus automotive stores, said he buys about $260 million worth of auto parts annually.

The system enables Sears suppliers "to get the right part in the right store," Naehring said.

Bar code estimating system bows

By Charles M. Thomas
AUTOMOTIVE NEWS STAFF REPORTER

Computer firm Reynolds and Reynolds Co. has introduced a computerized bar code system for estimating vehicle collision damage at car dealerships.

The system was developed under a joint marketing venture with Mitchell International, publisher of collision estimating manuals for the automotive industry.

It uses a hand-held wand that reads bar codes in specially designed Mitchell manuals that list repair times, prices and parts needed to fix vehicles.

Mitchell International, based in San Diego, publishes collision estimating manuals and provides electronic data, service and repair manuals for body shops and insurance companies.

Company officials say the computerized collision estimating system cuts in half the time needed by a service representative to estimate repairs. And it is more accurate than writing by hand the parts and labor requirements on collision damage repair forms.

Another advantage is that the computerized system automatically includes brackets, grommets and screws that are often overlooked by estimators when collision damage forms are prepared.

Dealers have to pay for those parts even though their customers aren't always charged for them.

"Most estimators never fold in the small miscellaneous parts," said Ray Yankowski, vice president of electronic collision database for Mitchell. "The average loss per repair amounts to $100 because estimators fail to write them down."

Though Mitchell has a similar computerized system for body shops, the joint marketing venture with Reynolds and Reynolds will enable the companies to market the system to dealers.

Reynolds will sell the body shop system to dealers with Reynolds' in-house computer systems and will market a stand-alone body shop system for all other dealers.

"Our customers have been very interested in having an integrated body shop system to increase the speed and accuracy of their body shop operations while assisting in their negotiations with the insurance carrier," said Jack Proud, senior vice president for Reynolds' Computer Systems Division.

He said that only 11 percent of the body shops in dealerships are computerized, though 60 percent of the dealerships have body shops.

Yankowski said the new bar code system is the only one of its kind and the only one using Mitchell manuals, which are used in 70 percent of all the body shops in the country.

It enables the estimator to complete a repair order on the computer, order parts, merge with the dealership's accounts receivables department and even retrieve a customer history.

Chevrolet rust ads grate on competitors

By Francis J. Gawronski
AUTOMOTIVE NEWS STAFF REPORTER

MILFORD, Mich. — Chevrolet is airing television comparison commercials claiming the rustproofing process on its 1991 Lumina is superior to those used on competitive 1991 vehicles.

The ads demonstrate that Lumina outperformed Ford Taurus, Honda Accord and Mercedes 300E in a corrosion durability test because of the benefits of two-sided galvanized steel.

A standard industry scribe tool was used to penetrate the paint, primer and zinc coatings on the rear fender panels of the Lumina and competitive cars to simulate scratches and nicks that would be encountered during the life of a vehicle, according to Lee Piepho, manager of General Motors' Corrosion Technology Center.

The vehicles used in the ads were subjected to an accelerated aging process, the equivalent of two years in the real world, when sprayed with salt and placed in corrosion chambers during a 30-day period.

Larry Singer, senior development engineer at the center, said that unlike the one-side galvanized metal on the competitive cars, Lumina's two-sided galvanized steel took the punishment in stride.

Galvanized steel has a protective zinc coating that many automakers use on the inside surface of the sheet metal to prevent corrosion on the inside of the body panel, the type of perforation covered by new-car warranties, Singer said.

But this one-side galvanized steel can't prevent rust from forming on the outside of the vehicle after something penetrates or damages the painted surface. In time, the damaged outside area — not covered by most warranties — is subject to widespread corrosion, Singer said.

Lumina and other Chevrolet and GM vehicles redesigned and introduced since 1985 are made with two-sided steel panels except on the roof, where, GM says, it's not needed. The two-sided panels will be added to other vehicles when body styles are redesigned, Piepho said.

GM owner's manuals advise customers that application of aftermarket rustproofing treatments are neither necessary nor required and may, in fact, create an environment which reduces the corrosion resistance already built into the vehicle by plugging moisture evaporation holes placed in the bodies, according to Singer.

While American Honda Motor Co. Inc. declined to comment about the commercials, spokesmen for Ford Motor Co. and Mercedes-Benz of North America Inc. indicated the companies were not impressed with the corrosion tests.

"What the commercials say about Lumina and Taurus is true, but if the whole story had been told, vehicles like Ford Escort, Lincoln Town Car, Mercury Tracer and Ford Ranger would be identified as having two-side galvanized steel," Jim Trainor, spokesman for Ford Parts and Service Division said. "Just about all Ford Motor Co. cars will have two-side galvanized steel by 1992."

While refusing to comment directly about the Chevrolet ad, Jess Miller, Mercedes-Benz staff engineer, said the "vast number of older Mercedes-Benz vehicles still on the road is ample evidence of the car's ability and durability to withstand corrosion."

Chevrolet and Ford offer six-year/100,000-mile corrosion warranties, while coverage for Mercedes-Benz is four-year/50,000-mile and Honda is five-year/unlimited mileage.

CENSUS

FROM PAGE 1

the combined domestic-import count has risen three times and declined five times.

All figures in this article and in the accompanying tables refer to the net change in dealership total.

Despite the disappearance of 433 establishments, the dealership population fared a lot better than it did during the recession of the early 1980s.

In 1980, the first year of that slide, 1,558 outlets went out of business — the heaviest loss since 1956. It was followed by declines of 630 in 1981 and 974 in 1982.

The current recession isn't expected to be that tough on auto dealers. First and foremost, it doesn't appear that it will last as long as the previous downturn. And, almost equally important, dealers are not crushed by the floorplan burden that forced many out of business in the early 1980s.

The floorplan rate peaked at 22 percent in those days. The current floorplan rate is about 10 percent. At 22 percent, a dealer was paying $275 a month to keep a $15,000 car in inventory. The 10 percent rate costs a dealer $125 a month on a $15,000 car, but dealers aren't stocking as many cars as they did a decade ago. Inventory reduction was one of retailers' prime cost-cutting measurers of the 1980s.

Floorplan costs aside, 1990 was a tough year for auto dealers. New-car sales dropped 4.86 percent; the economy was less than robust; and the situation in the Persian Gulf postponed prospect visits to showrooms. Dealer profits were low or nonexistent, and many retailers decided it was time to get out.

Last year's dip in the nation's dealership total was the 26th in the last 30 years. The count rose in 1964, in 1984 (by just three outlets) in 1985 and in 1986.

During those 30 years, the number of new-car stores declined 29.92 percent. At the beginning of 1961, the dealership population was 34,803. The current tally is 24,390, a drop of 10,413.

The number of import-only dealerships more than doubled during those three decades; domestic locations declined 41.56 percent, dropping from 32,482 to 18,984.

Last year's downturn among the Big 3 consisted of losses of 202 dealerships for GM, 123 for Chrysler and 93 for Ford. The aggregate of 418 was reduced to 398 by a change in the number of intercorporate duals.

An intercorporate dual is a dealership that handles — in the same showroom — the cars of two or all of the Big 3. Most of them combine Chrysler's Eagle with GM or Ford lines. Eagle is the former American Motors dealer organization that was taken over by Chrysler in its 1987 acquisition of AMC. AMC was heavily dualed with the Big 3.

For each of the Big 3, 1990's decline was the steepest since 1982.

Saturn kept GM from slipping below 9,000 car dealerships. GM has 8,990 stores that handle Chevrolet, Pontiac, Oldsmobile, Buick and Cadillac either alone or in various combinations. Saturn added 58 to that total. All Saturn dealers have other franchises — 43 have GM lines — but the Saturn stores are stand-alone locations.

In addition to its 9,048 car dealerships, GM has another 435 that handle GMC trucks but do not have a GM car. GM's overall car-truck dealer count is 9,483.

Ford and Chrysler also have some truck-only points. Ford has 104 that handle only Ford heavy-duty trucks; Chrysler has three Dodge truck-only locations and 19 Jeep exclusives. In this article and the accompanying tables, all the truck-only spots are omitted from corporate dealership totals and divisional franchise totals.

On the import side, the 5,406 dealerships consist of 4,276 exclusives and 1,130 that carry two or more import lines but no domestic makes. A year ago, the 5,441 import-only stores comprised 4,356 exclusives and 1,085 duals.

Imported cars are sold in an estimated 22,983 dealerships in the United States. In addition to the 5,406 import-only spots, 16,639 Big 3 outlets have a captive import — a line that is handled only by the domestic company or division that imports it. Domestic duals with independent imports (with no captive involved) make up the balance of the 22,983.

At the beginning of 1991, the Big 3 and the independent imports had 50,505 franchises in force, down 227 from a year earlier. Among the Big 3, Eagle, Cadillac and Geo were the only gainers. Losses ranged from 11 for Lincoln to 100 for Chevrolet.

The largest import increases were Hyundai, up 100; Mitsubishi, up 85; and Alfa Romeo, up 61. The biggest declines were Volkswagen, down 50, and Sterling, off 45.

Most captive imports are not included in the franchise count because they are part of the parent franchise. Exceptions are Chevrolet's Geo and Chrysler's TC by Maserati, which are separate franchises and are listed separately.

30 YEARS OF DEALERSHIP TOTALS

	Jan. 1, 1961	Jan. 1, 1971	Jan. 1, 1981	Jan. 1, 1991	30-year change No.	Pct.
Domestic	32,482	26,126	21,772	18,984	−13,498	− 41.56
Import-only	2,321	4,188	4,561	5,406	+ 3,085	+132.92
Total	34,803	30,314	26,333	24,390	−10,413	− 29.92

U.S. NEW-CAR OUTLETS

Domestic and import

	No. of retail outlets	Pct. gain or loss from previous year
Jan. 1, 1958	39,108	−0.1
Jan. 1, 1959	37,558	−4.0
Jan. 1, 1960	36,336	−3.3
Jan. 1, 1961	34,803	−4.2
Jan. 1, 1962	33,461	−3.9
Jan. 1, 1963	33,308	−0.5
Jan. 1, 1964	33,291	−0.1
Jan. 1, 1965	33,360	+0.2
Jan. 1, 1966	33,114	−0.7
Jan. 1, 1967	31,584	−4.6
Jan. 1, 1968	31,101	−1.5
Jan. 1, 1969	31,076	−0.1
Jan. 1, 1970	30,842	−0.8
Jan. 1, 1971	30,314	−1.7
Jan. 1, 1972	30,150	−0.5
Jan. 1, 1973	30,094	−0.2
Jan. 1, 1974	29,998	−0.3
Jan. 1, 1975	29,701	−1.0
Jan. 1, 1976	29,309	−1.3
Jan. 1, 1977	28,744	−1.9
Jan. 1, 1978	28,656	−0.3
Jan. 1, 1979	28,512	−0.5
Jan. 1, 1980	27,891	−2.2
Jan. 1, 1981	26,333	−5.6
Jan. 1, 1982	25,703	−2.4
Jan. 1, 1983	24,729	−3.8
Jan. 1, 1984	24,721	−0.0
Jan. 1, 1985	24,724	+0.0
Jan. 1, 1986	24,823	+0.4
Jan. 1, 1987	25,156	+1.3
Jan. 1, 1988	24,938	−0.9
Jan. 1, 1990	24,823	−0.5
Jan. 1, 1991	24,390	−1.7

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NEW-CAR FRANCHISES IN THE UNITED STATES

	Jan. 1, 1991	Jan. 1, 1990
Chrysler	3,002	3,093
Dodge	2,940	3,014
Eagle	1,572	1,521
Plymouth	2,981	3,069
TC Maserati	307	322
Chrysler Corp.	**10,802**	**11,019**
Ford	4,452	4,527
Lincoln	1,636	1,647
Mercury	2,713	2,755
Ford Motor Co.	**8,801**	**8,929**
Buick	2,930	2,945
Cadillac	1,620	1,615
Chevrolet	4,750	4,850
Geo	4,143	4,083
Oldsmobile	3,105	3,135
Pontiac	2,960	2,975
Saturn	58	0
General Motors	**19,566**	**19,663**
UNITED STATES	**39,169**	**39,551**
Daihatsu	235	235
Acura	300	303
Honda	974	956
American Honda	1,274	1,259
Isuzu	591	572
Mazda	876	850
Mitsubishi	500	415
Infiniti	80	58
Nissan	1,113	1,111
Nissan Motor	1,193	1,169
Subaru	732	752
Suzuki	288	288
Lexus	121	88
Toyota	1,189	1,160
Toyota Motor	1,310	1,248
JAPAN	**6,999**	**6,788**
BMW	377	394
Mercedes-Benz	408	414
Porsche	258	278
Audi	341	356
Volkswagen	744	794
VW of America	1,085	1,150
GERMANY	**2,128**	**2,236**
Saab	340	361
Volvo	407	411
SWEDEN	**747**	**772**
Hyundai	423	323
SOUTH KOREA	**423**	**323**
Aston Martin	14	14
Jaguar	137	139
Lotus	71	71
Rolls-Royce/Bentley	53	53
Sterling	128	173
GREAT BRITAIN	**403**	**450**
Alfa Romeo	193	132
Ferrari	40	40
Lamborghini	16	13
Maserati	42	46
ITALY	**291**	**231**
Peugeot	170	196
FRANCE	**170**	**196**
Yugo	175	185
YUGOSLAVIA	**175**	**185**
TOTAL	**50,505**	**50,732**

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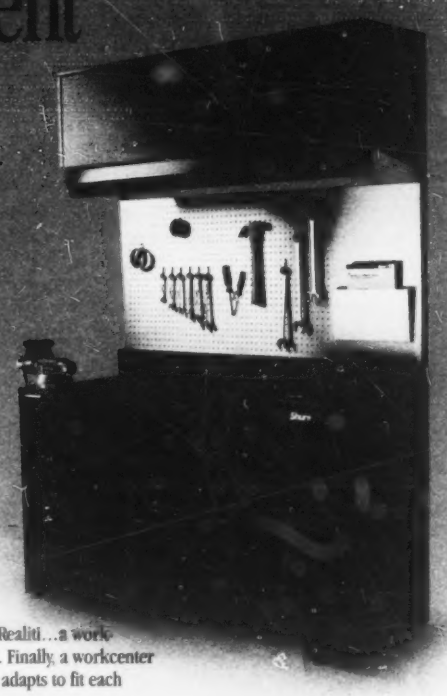

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OBITUARIES

Peter R. Kaputa Jr.

TITUSVILLE, Pa. — Peter R. Kaputa Jr., 75, who owned Kaputa Motor Sales of Tionesta (Chevrolet-Oldsmobile) in Tionesta, Pa., died Feb. 6. He had retired in 1982.

Harvey A. Arnegard

MESA, Ariz. — Harvey A. Arnegard, a Williston, N.D., Buick dealer, died Feb. 20. He was 87.

Elmer George Borchers

CAVE CREEK, Ariz. — Elmer George Borchers, a retired Mesa, Ariz., Honda dealer, died on Feb. 13. Borchers was 71.

Malcolm E. Dorey

FORT MYERS, Fla. — Malcolm E. Dorey, founder of Dorey Jeep Auto Sales in Belchertown, Mass., died Feb. 17. He was 78.

John Arthur Coghlan

PHOENIX — John Arthur Coghlan, 56, owner of Saab Valley Imports in Phoenix, died Feb. 22.

Sydney D. Goldberg

BOSTON — Sydney D. Goldberg, former president of Neptune Motors (Dodge) in Boston, died Feb. 25. He was 81.

Mitsubishi, Mazda deliver flexible-fuel cars

Japanese carmakers are submitting flexible-fuel vehicles to the California Energy Commission and the California Air Resources Board for emissions testing.

The latest vehicles being tested are a Mitsubishi Galant and Mazda 323. Both cars are capable of running on a mixture of up to 85 percent methanol and 15 percent gasoline — as well as any mixture of up to 100 percent gasoline.

Both cars feature more sophisticated engine-control electronics with a methanol concentration sensor. With the sensor and high-powered software, ignition and fuel timing are adjusted to the specific methanol blend.

— Jack Keebler and Mary Connelly

Color popularity in 1990

LUXURY CARS		FULL- AND MID-SIZED CARS		COMPACT/ SPORTS CARS		TRUCKS/VANS	
Medium red	9.18	Light Blue	10.08	Medium/dark gray	5.78	Black	11.01
Dark blue	8.53	Silver	9.36	Black	7.48	Red	10.49
Medium gray	8.42	Dark blue	8.72	Silver	6.43	Medium/dark gray	8.26
Light blue	7.88	Bright red	5.79	Medium red	5.78	Silver	6.41
Black	7.65	Black	5.57	Dark blue	5.72	Light blue	6.40
Dark red	5.27	Medium blue	3.80	Bright blue	4.79	Light brown	3.11
Medium blue	3.32	Dark red	2.99	Medium blue	2.59	Bright blue	3.08
Beige	3.00	Light brown	2.16	Dark red	2.59	Medium/dark brown	2.80
White metallic	1.66	Beige	1.45	Light brown	2.03	Green	1.24
Medium/dark brown	1.58	Purple brown	0.97	Turquoise/aqua	1.78	Beige	0.88
Other	1.97	Medium/dark brown	0.95	Yellow	0.57	Other	0.37
		Green	0.72	Green	0.43		
		Bright blue	0.44	Other	0.45		
		Other	0.44				

Source: Du Pont Co. Automotive Products

AUTOMOTIVE NEWS / DAVID L. BURHANS

WHITE DOMINATES CAR COLORS

Americans made white their color of choice in 1990, followed in order by red, black, light blue and silver.

"White captured an average of 21.6 percent of each vehicle category. This unprecedented popularity demonstrates consumers' preference for bright, clean-looking cars," said Robert S. Daily, color marketing manager for Du Pont Automotive Products' Finishes Division.

For the first time in nearly two decades, turquoise/aqua is recapturing consumer interest within an overall trend toward lighter, brighter colors, according to Daily, who expects the color will continue to grow in popularity for smaller, sportier models.

He said technologies affecting vehicle finish color include:

- Graphite pigments that accentuate the contour and sleekness of dark blue and green cars by making the finish look vibrant when viewed straight on, but grayish at an angle
- Micronized titanium dioxide pigments that give light colors bluish highlights, called the "opalescent effect"
- New clearcoat finishes for greater glamor, gloss and durability.

AIR BAG RESTS AS POLE TAKES BLOW

Howard Williams' 11-day-old 1991 Cadillac Fleetwood slammed head-on into a steel traffic signal pole at 45 mph. Bruised but not seriously hurt, Williams realized the air bag didn't fire.

The world's first documented case of an air bag failure?

Not necessarily. It seems the crushed Cadillac's only value is its illustration of when an air bag isn't supposed to work.

Williams said his cruise control was set at 55 mph when he entered an intersection in Evansville, Ind., on Jan. 4 and the Cadillac was struck in the right side by another vehicle. The Fleetwood veered away and struck a 6-inch-diameter steel pole, shearing it off.

"If you had seen the car, you would have thought the air bag should have gone off," said Tommy Kemp, a Henderson, Ky., used-car dealer who helped spark a probe by Cadillac. Williams obtained the car through Kemp.

The car was towed to a dealership in Henderson, where a technician concluded that one of the three sensors that trigger the air bag was crushed in the collision, while the other two hadn't reacted to the crash, Kemp said.

The National Highway Traffic Safety Administration was so interested, it had investigators from the Transportation Research Center at Indiana University-Bloomington visit the crushed Cadillac and walk the accident scene within a day of finding out about the crash.

Ron Drahos, a scientist at the Transportation Research Center, said investigators measured the the dents in both of the cars involved in the initial collision and then ran a computer simulation to estimate the relative velocity of the Cadillac when it struck the pole. The computer determined that the damage sustained by the Cadillac was equivalent to the car hitting an immovable barrier at 14.3 mph, which is slightly above the threshhold in which air bags are supposed to work.

But Drahos said the big qualifier was the pole, which broke away and absorbed much of the deceleration force that would have triggered the air bag sensors.

He said that the car which collided with Williams' Cadillac was a 1990 Dodge Dynasty — also equipped with an air bag. The Dynasty's air bag didn't go off, either.

"Our best guess is the (relative) velocity of the Cadillac was below the threshhold (needed to fire the air bag)," Drahos said.

General Motors, Cadillac and Cleveland-based TRW Inc., which supplies the air bag module for the Fleetwood, declined to comment specifically on the accident.

But Jamie Obermeyer, an air bag engineer at GM, said an air bag is designed to inflate in a front-end accident comparable to running into a brick wall at roughly 14 mph. In that case, two of the three sensors must engage in order to close an electrical circuit, sending a charge from the car's battery to the air bag inflater inside the steering column.

Obermeyer said people frequently assume that an air bag should inflate if a car traveling at more than 14 mph is in an accident. But he said it is the force of the accident, not the car's speed, that determines whether the sensors react.

"I don't know of any cases where the air bag has failed to perform as designed," Obermeyer said. "That doesn't mean there haven't been customers who thought the bag should have deployed. But in all of those cases I know of, the customers weren't injured in any way that the bag could have helped them."

A TRW engineer, who asked not to be named, said the fact that Williams was unhurt and the driver of the Dynasty received a very minor injury was evidence that the accident wasn't forceful to require firing the bag.

"You don't want these things to go off when you don't really need them," the engineer said. "Why would you want to spend $1,000 to replace an air bag if you didn't need it to avoid injury?"

A PEAK INTO YEAR 2000

An upcoming peek into the future may indicate how the automotive business will be running at the end of this decade.

How the U.S. automotive industry will look in the year 2000 and what car companies and their suppliers must do to prepare for the transition are the subjects of a major study and joint venture between Ernst & Young, an international professional services firm, and the University of Michigan's Office for the Study of Automotive Transportation.

Dubbed the "Car Company of the Future Project," the study will include a survey of more than 1,000 executives and senior managers at the Big 3 and their top, middle, and lower tier suppliers, as well as U.S. executives of transplants.

The study will include focus group sessions and one-on-one interviews with top executives, as well as use of secondary research.

Ernst & Young and Office for the Study of Automotive Transportation developed a model for the study and began data collection in January. The program will examine the challenges facing automotive manufacturers as they adapt to changes in industry structure, manufacturing, labor force, and market trends. It will also seek to identify the strategic alternatives for companies as they grapple with these issues and prepare for the future.

"This study should help car companies identify options for achieving their vision of future competitive success. We intend to identify and develop practical approaches to begin the transition today to the successful automotive companies of the future," said Lee Sage, Ernst & Young partner and national director of automotive industry services.

Major results are expected to include:

- Insights into the future organizational structures and characteristics of U.S. car assemblers, suppliers, and transplants.
- Identification of programs and plans within the industry aimed at preparing for the future industry environment.
- New information on creative approaches, techniques and innovations which could be used by car companies as they evolve into a new global competitive standard.

"Most manufacturers and suppliers have a pretty clear idea of where they would like to be in the next 20 years, but it is often difficult to identify the most effective means of getting there in view of their current situation and constraints. This study will help bridge the gap," said David E. Cole, director of the University of Michigan's Office for the Study of Automotive Transportation.

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